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# CONSTRUCTION OPERATIONS PLAN

## BAYONNE BARREL AND DRUM DECOMMISSIONING AND DEMOLITION

Newark, New Jersey

Code Job No. 628188

March 3, 2004  
(Revision No. 2)

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# CONSTRUCTION OPERATIONS PLAN

## BUILDING DECOMMISSIONING AND DEMOLITION

### BAYONNE BARREL AND DRUM SITE

#### Newark, New Jersey

#### TABLE OF CONTENTS

REVISION SUMMARY.....	3
AUTHORIZATION PAGE.....	4
INTRODUCTION.....	5
LIST OF ACRONYMS AND ABBREVIATIONS.....	6
1.0 PROJECT OVERVIEW.....	7
1.1 Site Overview.....	7
1.2 Site Background.....	8
1.3 Scope of Work.....	8
2.0 PROJECT ORGANIZATION.....	12
2.1 Project Staffing.....	12
2.1.1 Personnel Responsibilities.....	12
2.1.2 Personnel Qualifications.....	12
2.2 Subcontractors.....	12
3.0 SEQUENCE OF WORK.....	15
3.1 Construction Schedule.....	15
3.2 Narrative Work Sequence.....	15
4.0 EQUIPMENT.....	16
5.0 OPERATIONS PLAN.....	17
5.1 Permits and Notifications.....	17
5.2 Mobilization.....	17
5.3 Temporary Facilities and Controls.....	17
5.3.1 Utility Connections and Mark-Out.....	17
5.3.2 Site Security.....	18
5.4 Environmental Protection Plan.....	19
5.4.1 Land Resources.....	19
5.4.2 Water Resources.....	20
5.4.3 Fish and Wildlife Resources.....	20
5.4.4 Site Maintenance.....	20
5.4.5 Noise Control.....	20
5.4.6 Dust Control.....	20
5.4.7 Prohibited Construction Activities.....	21
5.5 Soil Erosion and Sediment Control Plan.....	21
5.5.1 General Requirements and Objectives.....	21
5.5.2 Erosion and Sediment Control.....	22
5.5.2.1 Silt Fence.....	22
5.5.2.2 Hay or Straw Bales.....	23
5.5.3 Implementation Schedule and Maintenance.....	23
5.5.3.1 Implementation Schedule.....	23

#### Code

	5.5.3.2 Maintenance and Repair .....	23
5.6	Methods for Asbestos Removal .....	26
5.7	Methods for Building Decommissioning .....	26
	5.7.1 Removal of Lighting Lamps, Ballasts and Smoke Detectors.....	26
	5.7.2 Concrete Pit, Sump and Trench Cleaning.....	28
	5.7.3 Concrete Surface Decontamination.....	29
	5.7.4 Metal Surface Decontamination.....	30
	5.7.5 Lead Based Paint Removal .....	30
	5.7.6 Process Piping and Waste Line Draining and Decontamination.....	32
	5.7.7 AST Decontamination and Removal.....	33
5.8	Surficial Residual Cleanup.....	34
5.9	Methods for Building Demolition .....	34
	5.9.1 Dismantlement and Demolition Procedures.....	34
	5.9.2 Demolition Material Staging and Sorting .....	35
	5.9.3 Miscellaneous Debris and Other Waste Removal .....	35
	5.9.4 Transportation and Off-Site Disposal.....	36
5.10	UST Removal Procedures .....	36
5.11	Septic Tank Removal Methods .....	38
5.12	Material Handling and Disposal Methods.....	38
5.13	Backfill .....	38
5.14	Decontamination Procedures.....	39
5.15	Demobilization and Contract Close-Out .....	39
	5.15.1 Project Record Documents.....	39
	5.15.2 Punch List and Final Inspection.....	39
	5.15.3 Discontinuance of Utilities.....	39
	5.15.4 Affidavit in Regard to Lien .....	40

## FIGURES

FIGURE 1	Project Organization Chart.....	14
FIGURE 2	Silt Fence Detail .....	23
FIGURE 3	Straw Bale Detail.....	24

## APPENDICES

APPENDIX 1	Resumes of Key Project Personnel
APPENDIX 2	Site Lay-Out Map
APPENDIX 3	Subcontractor ACM Removal Plan

## COP SUPPLEMENTS (Submitted Under Separate Cover)

Sampling and Analysis Plan  
Quality Assurance/Quality Control Plan  
Transportation and Disposal Plan  
Site-Specific Health and Safety Plan  
Work Schedule

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**CONSTRUCTION OPERATIONS PLAN**  
**BUILDING DECOMMISSIONING AND DEMOLITION**  
**BAYONNE BARREL AND DRUM SITE**  
**Newark, New Jersey**

**REVISION SUMMARY**

Revision No.	Revision Date	Description of Changes	Reason for Change
0	12/31/03	N/A – Original Submittal	N/A – Original Submittal
1	01/14/04	Revision #1	Client Review
2	03/03/04	Revision #2	EPA Review

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**CONSTRUCTION OPERATIONS PLAN**  
**BUILDING DECOMMISSIONING AND DEMOLITION**  
**BAYONNE BARREL AND DRUM SITE**  
**Newark, New Jersey**

**AUTHORIZATION PAGE**

This Construction Operations Plan has been reviewed and hereby approved. By their signatures, the following undersigned certify that this Plan meets the requirements of the Contract Documents.

\_\_\_\_\_  
Richard J. Abramo, Project Director  
Code Environmental Services, Inc.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Thomas M. Tomassetti, Project Manager  
Code Environmental Services, Inc.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Jack McBurney, Project Manager  
*de maximis, inc.*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

**Code**

# **CONSTRUCTION OPERATIONS PLAN**

## **BUILDING DECOMMISSIONING AND DEMOLITION**

### **BAYONNE BARREL AND DRUM SITE**

#### **Newark, New Jersey**

#### **INTRODUCTION**

The following Construction Operations Plan has been developed by Code Environmental Services, Inc. (hereinafter referred to as CODE or the Contractor) for the Bayonne Barrel and Drum Site Building Decommissioning and Demolition Project in Newark, New Jersey.

This plan describes, in detail, the procedures that CODE will follow to implement the work required under the scope of this Contract. Specifically, this Plan addresses how the project will be staffed and sequenced.

A copy of the approved Construction Operations Plan will be maintained on-site by CODE during remedial construction.

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# CONSTRUCTION OPERATIONS PLAN

## BUILDING DECOMMISSIONING AND DEMOLITION

### BAYONNE BARREL AND DRUM SITE

#### Newark, New Jersey

#### LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	MEANING
ACM	Asbestos Containing Material
ANSI	American National Standards Institute
API	American Petroleum Institute
AST	Aboveground Storage Tank
CODE/The Contractor	Code Environmental Services, Inc.
COP	Code's Construction Operations Plan
CSE	Confined Space Entry
DOT	United States Department of Transportation
EPP	Environmental Protection Plan
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
PRCS	Permit Required Confined Space
RCRA	Resource Conservation & Recovery Act
S&A Plan	CODE's Project-Specific Sampling and Analysis Plan
SSHASP	Site Specific Health and Safety Plan
SOP	Standard Operating Procedure
SOW	Scope of Work
SHSO	Site Health and Safety Officer (CODE)
TSD	Treatment, Storage and Disposal
TSCA	Toxic Substance Control Act
T&D Plan	Code's Project-Specific Transportation and Disposal Plan
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank

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## SECTION 1.0 Project Overview

### 1.0 SITE OVERVIEW

The Bayonne Barrel and Drum Site consists of approximately 15 acres of land located at 150-154 Raymond Boulevard in Newark, Essex County, New Jersey. As illustrated in Appendix 2, Site Lay-Out Map, the property has an elongated shape and is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west; an entrance ramp to the New Jersey Turnpike to the east and south; and a cinema parking lot to the southwest. Ground surface ranges from 20 feet above mean sea level at the southwest corner of the property and gradually slopes to the northeast to approximately 5 feet above mean sea level.

Nine buildings totaling approximately 88,000 square feet exist at the site. The buildings are in various states of disrepair ranging from a standing intact condition to partially burned out and collapsing. Building descriptions and estimated construction dates are summarized below.

<u>Building Number</u>	<u>Floor Area (sq. ft.)</u>	<u>Estimated Construction Date</u>	<u>Description/Use</u>
1	29,000	1967-1968	Concrete block building used for reconditioning of closed head drums and for shot blasting open and closed head drums.
2	2,250	1964-1965	Drum staging building for preparation for the furnace
	760	1964-1965	Furnace for the cleaning of drums.
3	14,000	Prior to or during the early 1930's	Concrete and brick building used to receive open head drums immediately after cleaning in the furnace.
4	20,000	1951-1952	Transite and steel building used for the reconditioning of open head drums.
5	4,000	1967	Paint storage building
6	5,400	Prior to or during the early 1930's	Office building.
7	9,300	Prior to or during the early 1930's	Machine shop and maintenance garage.
8	2,400	1940's	Boiler House
9	1,750	1968-1969	Service building.

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In addition to the buildings, additional site structures include:

- ξ A 90-foot long water separator trench (water inside);
- ξ One 5,000 gallon underground wastewater-settling tank;
- ξ One 60,000 aboveground water settling tank (containing approximately 8' of sludge);
- ξ One 12,000 gallon aboveground storage tank (wet);
- ξ One 10,000 gallon aboveground storage tank (wet);
- ξ Three septic tanks/pump stations located off the southwest corner of Building 8, the southwest corner of Building 3, and the southeast corner of Building 1;
- ξ Four underground storage tanks near Building 8;
- ξ A collection separator trench located adjacent to the furnace; and
- ξ Two underground storage tanks located northeast of the furnace.

## 1.2 SITE BACKGROUND

The Bayonne Barrel and Drum Company operated as an unlicensed treatment, storage, and disposal (TSD) facility on the property from 1940 to the early 1980's when the company filed for bankruptcy under Chapter 11. Drum cleaning and reclamation operations included washing of open and closed-head drums and incineration of open head drums. Subsequently in March 1993 and July 1994, the United States Environmental Protection Agency (USEPA) conducted removal activities under the Removal Action Branch. These previous removal activities included:

- ξ Site security measures including fence repair and signage;
- ξ Removal of approximately 46,000 drums;
- ξ Testing, segregating, and over packing hazardous substances;
- ξ Removal of ash pile contaminated with dioxin and lead; and
- ξ Removal of tanks containing contaminated sludge.

The Bayonne Barrel Site PRP Group (hereinafter referred to as The Group or the Owner) is conducting the current scope of work (see Section 1.3) in an effort to promote site security and to progress the site remedy.

## 1.3 SCOPE OF WORK

CODE's contracted scope of work (SOW), includes but is not limited to the following activities.

1. **Pre-Mobilization.** Following award and prior to mobilization, CODE will prepare and submit required project plans, schedules, and other required pre-work submittals.
2. **Mobilization.** Mobilization will include all activities needed to fulfill the requirements of the Technical Plans and Specifications which includes, but is not limited to:

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- Mobilization of all equipment, personnel, and supplies to perform the Work.
  - Office trailers, break trailer, and toilet facility setup and maintenance.
  - Utility connections;
  - Decontamination pad construction.
3. **Site Security.** CODE will maintain security at the Site during its use of the Site. This includes maintaining Site fences, gates, and locks along the northern Site boundary between Routes 1 and 9 and the New Jersey Turnpike in a manner that prevents unauthorized entry to the site. This also includes an electronic surveillance system, site lighting in the support zone near the office trailers and Security guards on a 24-7 schedule.
4. **Debris/Tire Cleanup.** CODE will load out accumulated debris waste piles and dumped tires for transportation and proper off-site disposal.
5. **Asbestos Removal.** Asbestos will be removed from buildings and structures prior to demolition and properly disposed off-site in accordance with applicable local, state, and federal regulations. CODE's asbestos abatement subcontractor will be responsible for any and all notifications, permits, etc. required to commence removal, packaging, and disposal activities.
- The intent of the asbestos removal activities is to remove asbestos containing material (ACM) from the buildings prior to the start of general demolition activities. However, access to certain ACM may not be possible until demolition occurs. Limited demolition may be required to access ACM. Care will be taken to avoid disturbing ACM during limited demolition operations to avoid a potential airborne contaminant risk.
6. **Decommissioning Activities.** Decommissioning activities will be completed prior to demolition of the Site's buildings and structures. The intent of the decommissioning activity is to provide an environmentally stable environment for demolition. Decommissioning activities will include, but not necessarily limited to:
- HID and fluorescent light bulb removal;
  - Removal of light ballasts and capacitors;
  - Concrete pits, sumps, and trench cleaning;
  - Floor surface cleaning;
  - Lead based paint removal; and
  - Tank (UST and AST) decontamination.
7. **Building Demolition.** Demolition activities to be conducted as part of this project include the dismantling and demolition of buildings, structures, bollards, utility poles, interior fence and posts, ASTs, USTs (post removal), septic tanks (post removal), and limited equipment. Miscellaneous debris and other waste material located on Site also will be characterized, collected, and properly disposed/recycled off-site. Buildings will be demolished to the concrete pad. The concrete slabs will be left in place and intact. The buildings to be demolished include the nine (9) buildings listed in Section 2.2.1 as well as any ancillary structures (e.g., above grade buildings, poles, structures, etc.).
8. **UST Removal.** Seven USTs are located at the site and will be removed during demolition and decommissioning activities. Four of the tanks are located near the south east side of Building 8. These tanks are reported to have contained Toluene, Cellusolve Acetate, Gasoline, and Diesel

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Fuel. Tank sizes are unknown. Two USTs are located at the end of the furnace conveyor North-Northeast of Building 2. These tanks are reported to have contained rinse water and ash from the furnace cooling operations. Tank sizes are unknown. The remaining UST is a 5,000-gallon tank located near the eastern side of Building 1 at the end of the water separator and settling trough. The tank was reportedly used as a wastewater settling tank.

Under direction of the USEPA, the contents of the tanks were pumped and disposed at an earlier date. The tanks have reportedly re-filled with storm and groundwater. The liquid contents of the tanks will be characterized and removed prior to UST removal. CODE will collect samples from each tank in accordance with its approved Sampling and Analysis (S&A) Plan to determine disposal options.

Following liquid content removal and disposal, the UST structures will be excavated and lifted by backhoe or other means, and placed above grade for inspection. The Group's Field Representative will photo document the status of the tank conditions with respect to rusting, ruptures, and areas of potential leaks.

The interior tank surfaces will be decontaminated to RCRA empty. The tanks will be cleaned intact or mechanically opened at the discretion of CODE's Site Superintendent. Solids (if any) will be collected and contained to allow sampling and characterization. Solid material will be properly packaged and disposed at an approved facility following characterization. Decontaminated USTs will be cut in to manageable pieces and recycled with other scrap metal leaving the site.

Post removal excavation sampling may or may not be required. If required, CODE will provide access and assistance to the Group's Field Representative, or designated representative, for sample collection. The excavations will be backfilled utilizing physically acceptable and environmentally clean imported backfill.

9. **Septic Tank Removal.** Three septic tanks will be removed, decontaminated, sized, and properly disposed/recycled. The tanks were reportedly used as septic tanks/pump stations. The liquid contents of the tanks will be characterized per CODE's approved S&A Plan and removed prior to septic tank removal. Excavation, removal, and backfill will be consistent with the methods used to remove the USTs listed above
10. **Surficial Residual Cleanup.** The courtyard area surrounding the furnace between Buildings 1 and 4 contains an accumulation of waste ash and product deposits. The SOW covered by this COP includes consolidating, sampling, loading, and disposal of this material prior to initiating demolition or UST removal activities in the immediate area.
11. **Transportation and Disposal and/or Recycling.** All waste material and demolition debris generated in the course of completing the contracted SOW will be properly disposed/recycled off-site in accordance with CODE's approved Transportation and Disposal Plan.
12. **Dust Control.** The SHSO will be responsible for monitoring dust levels and ordering implementation of dust controls. A water source will be available and functional at the Site for the duration of the work activities. The buildings will be sprayed at the start of, and during demolition as needed to control visible emissions weather dependent. Visible emissions leaving the site will be grounds for the SHSO or the Group's Field Representative to order operational

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shut down until appropriate actions are implemented to prevent further off site emissions. Dust monitoring requirements are addressed in Section 7.0 of the SSHASP.

13. **Ash Disposal.** If (based on analytical data) the ash pile meets disposal facility requirements, CODE will load, transport, and dispose of approximately 300 cubic yards of contaminated ash material currently staged at the southeastern end of the site. If the ash pile does not meet disposal facility requirements, CODE will consult with the Group's Representative on how to proceed.
14. **Final Cleaning/Demobilization.** Upon completion of the Work, CODE will broom sweep all concrete and asphalt surfaces from building slabs and parking areas. All residual debris will be collected and properly containerized and disposed. CODE then will demobilize equipment, personnel, office trailers, and any supplies brought to the site. Final repairs will be made to gates, fences, locks, etc. to ensure the site is left secure upon departure.

All of the above operations will be performed as specified in the Project Specifications and Contract Drawings and described in this Construction Operations Plan (COP) and CODE's approved Sampling and Analysis, Quality Assurance/Quality Control, Transportation and Disposal, and Site-Specific Health and Safety Plans. The site shall be operated and maintained by CODE throughout the duration of the Contract as specified in the Plans and Specifications and as described in the referenced Contractor project plans. The requirements of CODE's Site-Specific Health and Safety Plan (SSHASP) shall be in effect from initial site mobilization through final demobilization.

## **SECTION 2.0**

### **Project Organization**

#### **2.1 PROJECT STAFFING**

As illustrated in Figure 1 at the end of this Section, CODE will assign the following key personnel to the project:

- Project Sponsor - Richard J. Abramo
- Project Manager - Thomas M. Tomassetti
- Site Superintendent - Lino Ferrara
- Site Health and Safety Officer (SHSO) - Mark P. Gambucci.
- Project QC Officer/Field Chemist (Alternate SHSO) - Frederick J. Andlauer
- Project Health and Safety Officer - Harry H Elias, P.E., CHMM

In addition to the key management personnel identified above, CODE will assign 2 to 3 operators and 3 to 4 laborers to the Site.

##### **2.1.1 Personnel Responsibilities**

The Project Sponsor will be responsible for overall direction and completion of this project.

The Project Manager will report to the Project Sponsor and will be responsible for direction and coordination of field activities. The Project Manager will serve as the Contractor's primary contact with the Group's Representative. The Site Superintendent will be responsible for overseeing Contractor and Subcontractor Operations in the field and will report directly to the Project Manager.

The Project QC Officer/Field Chemist will report to the Project Sponsor and will be responsible for field implementation of the S&A and QA/QC Plans. The Project QC Officer/Field Chemist will assist the Group's Field Representative in the collection of other required samples as directed.

The Project Health and Safety Officer will be responsible for the overall content, proper implementation, and maintenance of the SSHASP. That individual will report directly to the Project Sponsor and will be represented in the field by the Site Health and Safety Officer (SHSO).

The SHSO will be responsible for field implementation of the SSHASP and for insuring the project team's compliance to the site-specific health and safety protocol established therein.

##### **2.1.2 Personnel Qualifications**

Resumes for the key project personnel identified in Section 2.1 are provided in Appendix A. All personnel assigned to the project site will be 40-hour trained and medically monitored in accordance with 29 CFR 1910.120 (see SSHASP for details).

#### **2.2 SUBCONTRACTORS**

Subcontractors will be used in support of this contract for the following work items:

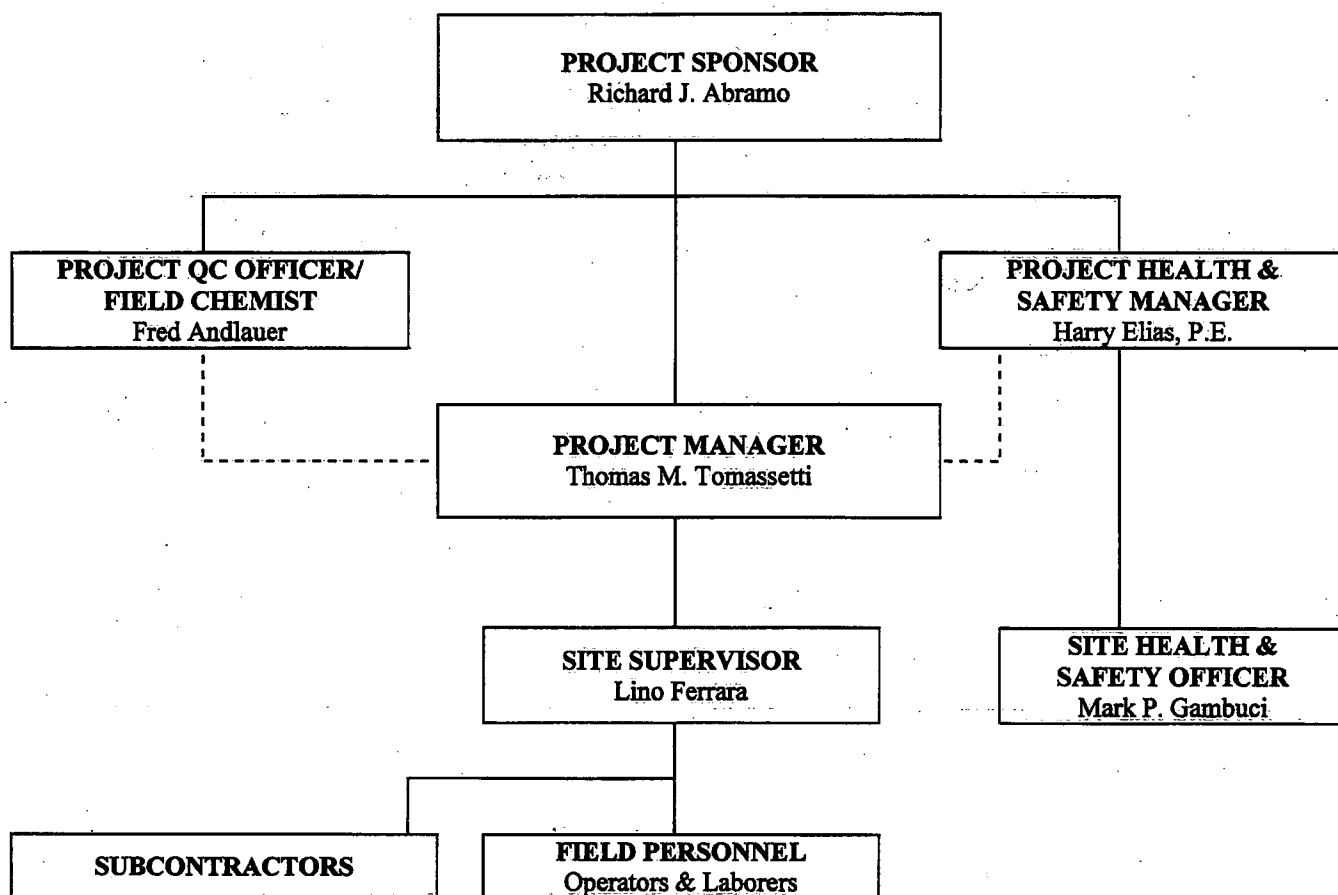
### **Code**

Company Name/Address	Area of Responsibility
<b>MACK Group</b> 455 Cortland Street Belleville, NJ 07109  Contact: <b>Mike Cooper</b> Phone: <b>973-759-5000</b>	<b>Asbestos Abatement</b>
<b>Metal Management Northeast, Inc.</b> Foot of Hawkins Street Newark, NJ 07105  Contact: <b>Thomas Schadd</b> Phone: <b>973-344-4570</b>	<b>Demolition</b>

Transportation and disposal firms to be used in support of this Contract are identified in the separately-bound Transportation and Disposal Plan.

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**FIGURE 1**  
**CONTRACTOR ORGANIZATION CHART**  
**BUILDING DECOMMISSIONING AND DEMOLITION**  
**Bayonne Barrel and Drum Site**  
**Newark, Essex County, New Jersey**



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## **SECTION 3.0**

### **Sequence of Work**

#### **3.1 WORK SCHEDULE**

The planned work sequence and duration for each major work task is graphically illustrated in the Work Schedule (submitted under separate cover).

CODE will update the approved Work Schedule with each request for payment by entering actual progress thereon. The status of activities completed or partially completed at the end of each period will be shown, as will the end of work completed. CODE will submit a modified schedule in the event any Group-authorized changes result in contract time extensions or reductions.

#### **3.2 NARRATIVE WORK SEQUENCE**

Generally, the project will be sequenced as follows.

1. Prepare pre-work submittals and attend pre-construction meetings.
2. Conduct sampling per Sampling and Analysis Plan.
3. Perform waste classification analyses for waste identification/disposal purposes.
4. Submit notifications to the EPA for disposal and asbestos (10) days before initiating site work.
5. Mobilize to site.
6. Set-up work and support areas and install temporary facilities and controls.
7. Initiate asbestos abatement operations.
8. Concurrent with asbestos abatement, clean up of surficial residual materials will be performed. This work will occur prior to initiation of demolition activities either by removing or CLEARLY segregating the material.
9. Following abatement in each building, conduct UST/septic tank removal, interior building cleaning, light/ballast removal, and dirt removal operations as appropriate to the work location.
10. Once the buildings have been decommissioned, begin demolition starting at the northwest Site corner along Routes 1 and 9 and working back towards the southeast Site corner along the NJ Turnpike.
11. Clean-up work areas and conduct project close-out operations.
12. Demobilize from site.

The specific sequence and duration of the above work activities will be as detailed in the Work Schedule (submitted separately).

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CONSTRUCTION OPERATIONS PLAN  
Bayonne Barrel & Drum Site, Decommissioning & Demolition

## **SECTION 4.0 Equipment**

Equipment to be utilized by CODE includes, but is not limited to:

- § Office Trailer(s)
- § Loader
- § Trackhoe w/Grapple Attachment
- § Dozer
- § Miscellaneous Safety Equipment
- § Temporary Water Storage Tank
- § Miscellaneous Hand Tools

Equipment to be utilized by the demolition subcontractor includes, but is not limited to:

- § PC400 Grapple
- § PC400 Hammer
- § WA 380 Loader
- § Rack Truck – Set Up for Torchmen
- § Containers
- § Dump Trailers
- § DeCon Trailer

Equipment to be utilized by the asbestos abatement subcontractor includes, but is not limited to:

- § Micro Traps (Air Filtration Units)
- § HEPA Vacs
- § Ladders
- § Lifts
- § Airless Sprayers
- § Respirators
- § Air Monitoring Equipment
- § Cutting Tools
- § Miscellaneous Hand and Power Tools

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## **SECTION 5.0**

### **Operations Plan**

After Notice to Proceed has been issued, CODE will mobilize to the Site and construct the project as described in the following subsections.

#### **5.1 PERMITS AND NOTIFICATIONS**

At a minimum, the following notifications/permits are required in support of this project:

- ξ UST Closure Permit. It is CODE's understanding that the Group's Representative will obtain the required UST closure permits.
- ξ 10-Day Notification for Asbestos Abatement. CODE's asbestos abatement subcontractor will submit written notification at least 10 days prior to beginning ACM removal operations in accordance with Specification Section 02132 and applicable regulations.
- ξ Demolition Permit. CODE's demolition subcontractor will be responsible for making necessary notifications and obtaining a demolition permit from the City of Newark.

Copies of required permits/notifications will be supplied to the Group's Representative in accordance with the Plans and Specifications.

#### **5.2 MOBILIZATION**

Personnel and equipment to be mobilized to the Site are identified in Sections 2.0 and 4.0 of this Plan, respectively.

Temporary facilities and controls (i.e., staging areas, construction trailers, security and communication operations, personnel and equipment decontamination facilities, project signs, etc.) will be provided in accordance with the Plans and Specifications and as described in the following subsection.

#### **5.3 TEMPORARY FACILITIES & CONTROLS**

Temporary facilities and controls will be set-up and maintained as described herein in accordance with the Contract Drawings and Specification Section 01521, FIELD OFFICES AND SHEDS. The site will be set-up as shown in Appendix 2, Site-Lay-Out Plan.

##### **5.3.1 Utility Connections and Mark-Out**

Temporary electric, telephone, and water service will be provided to the Contractor and Group's Representative trailers as required to perform the work for the duration of the project in accordance with Specification Section 01521. CODE will obtain all necessary permits and/or permission to tie-in to existing utilities from the appropriate agencies/companies prior to utility installation or connection. Temporary services will be brought into the Support Zone from the nearest existing utility tie-in locations. Installation will comply with the servicing utilities' requirements.

Temporary sanitary facilities will be provided in accordance with Specification Section 01521, Part 1.8. Temporary toilets will be located in the field office location (see Appendix 2, Site Lay-Out Plan). CODE

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will subcontract with an outside sanitation facility company to provide, install, and periodically service the toilets. Provisions will be made for pest control and elimination of odors.

All temporary utilities and connections made during mobilization will be removed upon completion of work unless otherwise directed by the Group's Representative (*de maximis, inc.*).

NOTE: At least three (3) days prior to commencing any subsurface activities, CODE will contact New Jersey One-Call (1-800-272-1000) to request utility mark-out. Identified utilities will be protected throughout the course of construction operations.

### 5.3.2 Site Security

CODE will maintain security at the site during CODE's use of the site on a 24/7 basis. Specific security measures to be implemented at the site include:

- § Installing additional fencing along the northern Site boundary between Routes 1 and 9 and the New Jersey Turnpike in accordance with the Plans and Specifications.
- § Maintaining existing and newly-installed site fences, gates, and locks along the northern Site boundary between Routes 1 and 9 and the New Jersey Turnpike in a manner that will prevent unauthorized entry to the Site. This includes blocking-off access points during non-work hours.
- § Installing temporary light fixtures to illuminate the site on a 24/7 basis.
- § Providing full-time, uniformed, security personnel at site access point during working hours from mobilization through substantial completion.

All on-site personnel and visitors will be required to sign-in and sign-out before entering or leaving the site. CODE will maintain records of all site access and security incidents. Visitors will be required to read and conform to the SSHASP prior to accessing controlled work zones. Vehicular traffic will be permitted in designated parking areas within the Support Zone, but access to the Exclusion and Contamination Reduction Zones will be restricted to authorized vehicles only. Use of on-site parking areas will be restricted to vehicles of the Group's Representative, Contractor, subcontractors, service vehicles related to the work, and authorized visitors.

Security checks will be conducted by a third-party security firm during workday non-working hours at 5-hour intervals. Security checks will be conducted at 8-hour intervals on non-workdays (weekends, holidays). A log of all such security checks will be maintained and supplied to the Group's Representative at project end, or more frequently upon request.

The Site Superintendent will be notified immediately of any incidents observed by the security officer during the security check. Appropriate support agencies (i.e., police, fire) will be notified as needed by either the security officer or Site Superintendent depending upon the immediacy of the incident (e.g., if an intruder is spotted at the site, the first call will be to the police, then the Site Superintendent). All incidents will be reported in the security log. Emergency notification procedures are defined in the SSHASP.

## 5.4 ENVIRONMENTAL PROTECTION PLAN

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The following Environmental Protection Plan (EPP) has been developed in accordance with Specification Section 01355.1.4.

In general, CODE will:

1. Preserve the natural resources within the project site that are not specified for removal or change;
2. Preserve the natural resources outside the project site impacted by the work;
3. Conform to federal, state, and local permitting requirements; and
4. Restore disturbed resources to an equivalent or improved condition upon completion of the work.

Vehicles, equipment, and machinery delivered or used at the site that have visible oil or hydraulic fluid leaks will not be allowed on site. Any oil or hydraulic fluid spills will be cleaned up in accordance with CODE's Spill Containment Plan (included in SSHASP).

All employees (Contractor and subcontractor) assigned to the project site will receive training on environmental protection. The training will be provided in conjunction with the initial site safety briefing (see SSHASP) and shall address:

1. Methods of detecting and avoiding pollution;
2. On-site spill prevention and spill cleanup;
3. Familiarity with pollution standards (statutory and contractual); and
4. Installation and care of vegetative covers, plants, and/or other facilities to prevent and correct environmental pollution.

#### **5.4.1 Land Resources**

CODE will take appropriate measures to preserve the land resources within the project boundaries and outside the limits of permanent work in their present condition. In areas where existing land resources must be disturbed to accommodate removal operations, CODE will implement restoration measures designed to establish a natural site appearance.

Removal operations will be confined to areas defined by the Plans and Specifications and established in the field. Material storage areas will be located within the limits of work in an area approved by the Group's Field Representative.

CODE, its employees, and its subcontractors will not deface, injure, or destroy trees or shrubs, nor remove or cut them without the authority of the Group's Field Representative. Protective barriers will be placed around trees located on the perimeter of the work and support areas that may be subject to harm (i.e., defacement, bruising, injury) from construction equipment or operations. Ropes, cables, or guys will not be fastened to or attached to any existing nearby trees for anchorage unless approval is first received from the Group's Field Representative. In the event it is necessary to fasten such equipment to a nearby tree, CODE will do so in a manner that will avoid damaging the tree.

Stone, earth, or other material that is displaced into non-work areas will be removed. Monuments and markers within the vicinity of the work and support areas will be identified and protected before construction operations commence.

## **Code**

#### **5.4.2 Water Resources**

CODE will not pollute streams, lakes, or reservoirs with fuels, oils, bitumens, calcium chloride, acids or harmful materials. CODE will take preventative measures to prevent spills or releases of waste materials. Potential spill sources and spill prevention and response procedures are discussed in the Spill Containment Plan (included in SSHASP). All Contractor operations associated with this project will comply with applicable Federal, State, County and municipal laws concerning pollution of surface waters.

#### **5.4.3 Fish and Wildlife Resources**

CODE will not alter or significantly disturb water flows or native habitat on or adjacent to the project site, except as indicated or specified. All wash waters and wastes will be collected for proper off-site treatment/disposal unless otherwise directed by the Group's Representative. Should polluting or fouling of water occur, CODE will notify the proper authorities and implement the response procedures set forth in its Spill Containment Plan (included in SSHASP).

#### **5.4.4 Site Maintenance**

CODE will maintain the Site at all times. Specifically, CODE will collect and properly containerize all accumulated material, including discarded health and safety equipment. Periodic cleaning will be conducted to keep the project site free from accumulation of material resulting from Project work. Trash and garbage wastes will be placed in appropriate waste containers at the end of each day and disposed of by CODE in accordance with applicable federal, state, and local regulations. Public streets will be continually maintained free of dirt, dust, and debris and raked from vehicles entering and exiting the site. Provisions shall be made to insure safe unobstructed egress from emergency exits within the secured work area on a daily basis.

The Site Superintendent will be responsible for inspecting the site to ensure that it is properly maintained. The Project Manager and/or Site Superintendent will jointly inspect the site with the Group's Field Representative at project end to certify that the entire project area is free of all extraneous materials generated from CODE's on-site operations.

#### **5.4.5 Noise Control**

CODE will maintain compliance with all applicable noise regulations and all State and local noise ordinances in accordance with Specification Section 01355, Part 3.7. Specifically, CODE will provide working machinery, designed to operate with the least possible noise.

#### **5.4.6 Dust Control**

CODE will maintain all work areas within or without the project boundaries free from dust which would cause a hazard or nuisance to others or contaminate surfaces.

CODE will spray a controlled amount of water on buildings at the start of, and during demolition as needed to control visible emissions. Water also will be used to control dust associated with other site operations.

Clean (i.e., free from salt, oil, and other deleterious materials) water will be applied to control dust utilizing a tank spray bar and pump with discharge pressure gauge. The spray bar will be positioned at a height above grade with the nozzle spacing and spray pattern arranged in a manner that will provide

## **Code**

complete coverage of ground with water. The application rate will be controlled so as to prevent surface run-off.

Dust control will be performed as deemed necessary by the SHSO and/or Site Superintendent. Dust monitoring will be conducted by the SHSO as stated in the SSHASP.

#### **5.4.7 Prohibited Construction Activities**

CODE will prohibit the following construction practices:

1. Dumping of spoil material into any stream corridor, any wetlands, any surface waters or at unspecified locations;
2. Indiscriminate, arbitrary, or capricious operation of equipment in any stream corridors, any wetlands, or any surface waters;
3. Pumping of silt-laden water from trenches or their excavations into any surface waters, stream corridors or any wetlands;
4. Damaging vegetation adjacent to, or outside of, the access road or the right-of-way;
5. Disposal of trees, brush, and other debris in any stream corridors, any wetlands, any surface water, or at unspecified locations;
6. Permanent or unspecified alteration of the flow line of any stream;
7. Open burning of construction project debris;
8. Location of storage or stockpile areas in environmentally sensitive areas; and
9. Airborne discharges of dust or dry stabilizing agents in excess of 3 mg/m<sup>3</sup>.

#### **5.5 SOIL EROSION AND SEDIMENT CONTROL PLAN**

Erosion and sediment controls will be installed and maintained in accordance with Specification Section 02374 and the Contract Drawings.

##### **5.5.1 General Requirements and Objectives**

- A. Temporary controls will be implemented and maintained as stated herein prior to and throughout the duration of the project.
- B. Earthmoving activities will be conducted in such a manner as to prevent accelerated erosion and sedimentation.
- C. The amount of unprotected soil exposed at any one time will be minimized as much as possible. Site factors including topography, soil erosion potential, proximity to wetlands, and watercourses may require limiting the amount of raw earth that can be exposed at any one time.

## **Code**

- D. Sediment control practices and measures will be designed to protect the natural character of nearby rivers, streams, lakes, or other water bodies and minimize erosion and sedimentation off-site.
- E. Sediment removed from temporary control structures and any permanent drainage facilities will be disposed of in a manner consistent with the overall intent of this plan that does not cause additional erosion.

### **5.5.2 Erosion and Sediment Control**

Erosion and sediment control measures will be installed in accordance with the Plans and Specifications and as deemed necessary by Code's Site Management or the Group's Field Representative. The devices will not be removed until the Group's Representative agrees they are no longer necessary.

Site conditions will change throughout the duration of the project as work proceeds and the contours change. Therefore, a flexible approach to erosion and sediment control is warranted. The erosion and sediment control measures described in the subsections that follow will be implemented as site conditions warrant. It shall be the responsibility of CODE Site Management, in conjunction with the Group's Field Representative, to determine, on a daily basis during operations, which of the following measures are appropriate.

#### **5.5.2.1 Silt Fence**

Silt fencing encourages deposition of silt and reduces the formation of gulleys. It is typically used to slow surface water runoff on broad areas. Silt fencing will be installed as deemed necessary by Code Site Management in conjunction with the Group's Field Representative.

Filter fabric fence to be used in support of this contract shall be constructed using prefabricated units that comply with the requirements set forth in Specification Section 02374, Part 2.1.A. Generally, each unit will be constructed as illustrated in Figure 2. The fabric and netting will be securely stapled to each post. When two sections of filter cloth adjoin each other they will be overlapped by six inches and folded. Posts will be spaced at a maximum of ten feet apart.

The filter fabric fence will be installed by first excavating a 6-inch by 6-inch trench. The fence will be unrolled with the posts positioned against the downstream side of the trench. The posts then will be driven into the ground as illustrated in Figure 2. The bottom 12 inches of the fabric will be laid in the bottom of the trench, which then will be backfilled and compacted. The top of the fabric will be kept taut to prevent sagging.

Silt fencing will be inspected daily. Repairs will be made if "bulges" develop between the posts, posts are knocked down or broken, or the silt fence fabric gets ripped or becomes undermined. Accumulated sediment in the silt fence will be routinely removed as described in Section 5.5.3.2 of this Plan.

#### **5.5.2.2 Hay or Straw Bales**

Hay or straw bale dikes will be used at specific points where erosion is likely to occur. Generally, two to three bales will be staked down in a line perpendicular to surface water flow (see Figure 3). Straw bales used in support of this contract shall meet the requirements of Specification Section 02374, Part 2.1.B. The bales will be securely anchored by at least two stakes or rebars driven through the bale 12 to 18 inches into the ground. Spaces between the bales will be chinked (filled by wedging) with hay or straw to

## **Code**



prevent water from escaping between the bales. The bales will be entrenched a minimum of 4 inches into the ground.

### **5.5.3 Implementation Schedule And Maintenance**

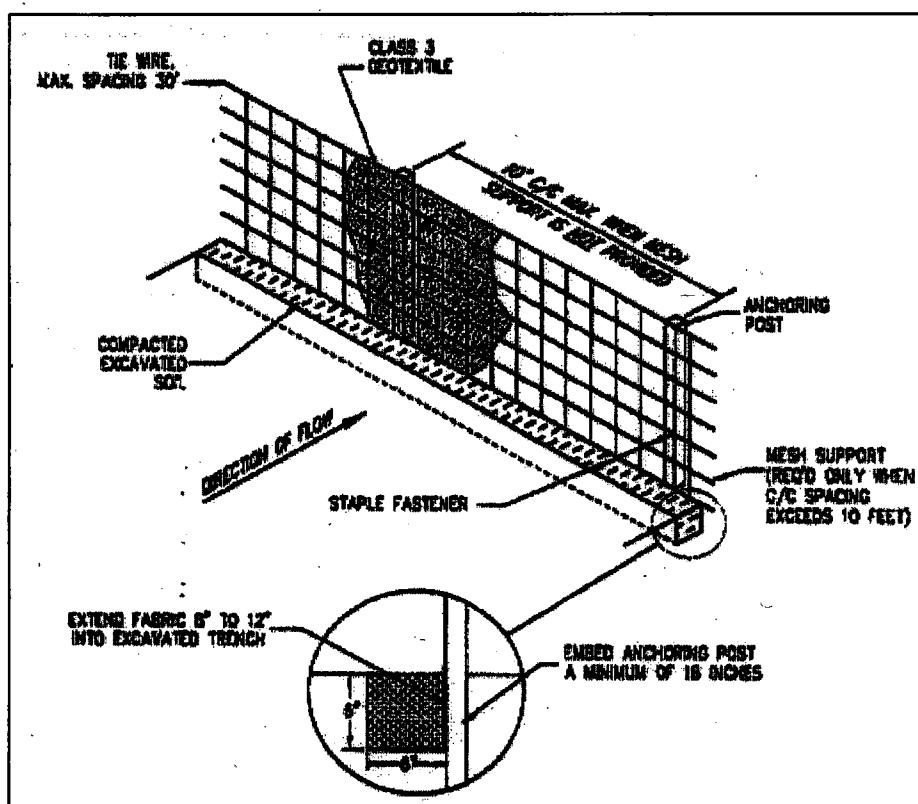
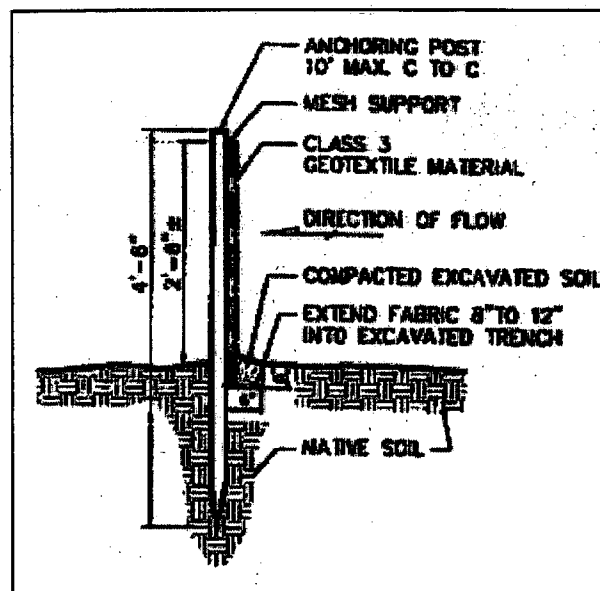
#### **5.5.3.1 Implementation Schedule**

Erosion and sediment controls will be installed as dictated by planned construction activities or changing site conditions at the determination of CODE Site Management or at the direction of the Group's Field Representative. Temporary control barriers will be removed after completion of construction or when no longer required (e.g., when stabilization of erosion has been achieved).

#### **5.5.3.2 Maintenance and Repair**

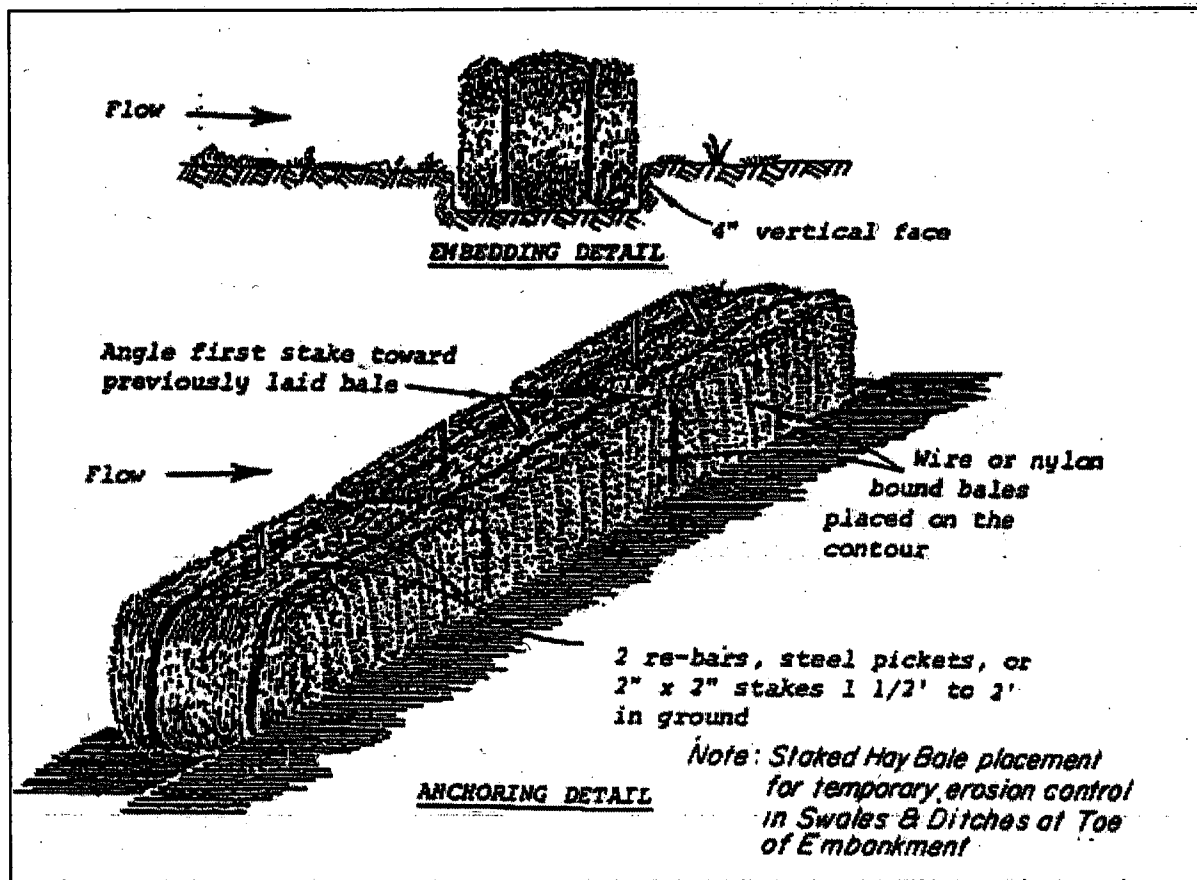
- A. CODE Site Management will inspect erosion control measures daily throughout the duration of the project to determine if silt cleaning or repair is required. Repairs to the sediment and erosion controls will be made as necessary. The Group's Field Representative will be informed of any unusual observations noted during these daily inspections. If the Group's Field Representative finds inadequacies of the erosion controls, he/she shall direct the Contractor to remedy such inadequacies.
- B. All points of construction ingress and egress will be protected to prevent the deposition of materials onto traversed public thoroughfares (see Transportation and Disposal Plan). Any materials deposited onto public thoroughfares shall be removed immediately in accordance with CODE's Spill Containment Plan (included in CODE's SSHASP). Proper precautions will be taken to ensure that any materials deposited onto public thoroughfares are removed so that they do not enter catch basins, storm sewers, or combined sewers.

**FIGURE 2**  
**Silt Fence Detail**  
 (Not to Scale)



## Code

**FIGURE 3**  
**Straw Bale Dike**  
 (Not to Scale)



## Code

- C. Accumulated sediment will be removed when 60 percent of the storage capacity of the retention structure is filled with sediment or at the direction of the Group's Field Representative. If accumulated sediments from any retention structure are potentially contaminated from up gradient areas, then these sediments will be staged for proper off-site disposal in accordance with CODE's Transportation and Disposal Plan.
- D. Areas of erosion shall be immediately repaired, re-seeded, re-mulched, and maintained until an acceptable growth is established.

## **5.6 ASBESTOS REMOVAL**

Asbestos containing material (ACM) will be removed from buildings and structures prior to demolition activity on the given structure in accordance with Specification Section 02132; all applicable local, state, and federal regulations; and the Asbestos Abatement Plans provided in Appendix 3. ACM removal will be performed by a qualified subcontractor (see Section 2.2).

## **5.7 METHODS FOR BUILDING DECOMMISSIONING**

CODE will complete decommissioning activities prior to demolition of buildings and structures on site. Decommissioning activities will include, but not necessarily limited to:

- § HID and fluorescent light bulb removal;
- § Removal of light ballasts and capacitors;
- § Concrete pits, sumps, and trench cleaning;
- § Floor surface cleaning;
- § Lead based paint removal; and
- § Tank (UST and AST) decontamination.

Decommissioning operations will be conducted in accordance with Specification Sections 02134 through 02233 and the subsections that follow.

### **5.7.1 Removal of Lighting Lamps, Ballasts, Capacitors, and Smoke Detectors**

CODE will remove lighting lamps and smoke detectors for recycling and PCB-containing ballasts and capacitors for disposal in accordance with Specification Section 02233. According to the Plans and Specifications, devices to be removed as part of this operation may include fluorescent type components, mercury vapor lamps, metal halide lamps, sodium vapor lamps, HID lighting capacitors, and smoke detectors.

Prior to initiating removal operations, CODE Site Management will, in consultation with the Group's Field Representative, locate the lighting lamps, ballasts, capacitors, and smoke detectors to be removed. CODE Site Management also will verify that the Site has been properly set-up to support the removal operation. Specifically, the Site Supervisor will verify that the accumulation/temporary storage area (see Appendix 2, Site Lay-Out Plan) is prepared to receive the anticipated quantity of devices scheduled for removal.

At each removal location, CODE will provide, erect, and maintain temporary barriers to protect personnel. The SHSO will maintain egress and access to the established areas at all times in accordance with Section 8.0 of the SSHASP. A spill kit will be maintained in each area where lighting, ballasts, or

## **Code**

smoke detectors are being handled. Sealable, non-leaking DOT-approved containers (e.g., 55-gallon drums, cardboard boxes, etc.) will be staged within the work areas in support of the removal operation.

Once the work area has been set-up, CODE will remove the devices as follows:

1. Verify that electrical power and current is deactivated to units.
2. Locate the lighting, ballasts, batteries and smoke detectors.
3. Remove the subject components, as applicable. Assess each component for damage or leaks.
4. If the respective component is not damaged or leaking, place the component in a sealable, suitable container (i.e., boxes for lamps, metal drums for ballasts). If the component is damaged or leaking, place the entire device in a sealable, non-leaking drum.
5. Remove, crush, and place the remaining fixture in a DOT-approved roll-off for subsequent disposal as scrap material.
6. Label all containers prior to or at the time of removal. NOTE: Lamps and smoke detectors will be recycled with like materials. Ballasts will be containerized and placed into contractor-supplied trucks for subsequent disposal.
7. Containerize and store all PCB-containing ballasts and PPE in accordance with applicable regulations. Containerize and label all PCB-contaminated materials in compliance with TSCA requirements.
8. Maintain a field record of the quantity, type, and locations of all components removed.
9. Provide a list to the Group's Field Representative of types, sizes, and quantities of waste containers used.

Waste from the removal operation will be handled in accordance with CODE's approved Transportation and Disposal (T&D) Plan. Removal of PCB and capacitors from light ballasts WILL NOT be performed on site. All mercury containing lighting including fluorescent, mercury-vapor, and high intensity discharge lamps (including Metal Halide lamps, low- and high-pressure sodium lamps) will be disposed of through a complete recycling process at the recycling facility identified in the T&D Plan. All PCB and light ballasts will be transported to an approved disposal/recycling facility for PCB incineration and recycling compliant with all applicable local, state, and federal regulations and permits (see T&D Plan).

CODE will comply with all applicable federal, state, and local regulations and the requirements of the selected disposal/recycling facilities. Drums and containers will be labeled in accordance with RCRA and or TSCA regulations. Waste characterization sampling and analysis will be performed in accordance with CODE's approved Sampling and Analysis Plan (SAP).

#### **5.7.2 Concrete Pit, Sump, and Trench Cleaning**

Trench, pit, and sump cleaning will be performed in accordance with Specification Section 02134. Operations associated with this work task include:

- ξ Inspection of trenches, pits, and sumps to be cleaned;

## **Code**

- ξ Bulk removal of dirt, sediment, and debris;
- ξ Dry scraping of surfaces and removal of collected dirt, sediment, and debris;
- ξ If necessary, power washing of surfaces and collection and handling of associated wastewater;
- ξ Punch a hole in the bottom of the trench, pit or sump and
- ξ Backfill trenches, pits, and sumps with approved backfill.

Prior to conducting the operation, CODE Site Management will examine each work area to verify existing site conditions and verify that the temporary facilities needed to support the operation are in place. Each trench, pit and sump to be cleaned will be located and inspected.

At each trench, pit, and sump location, CODE will provide, erect, and maintain temporary barriers to protect personnel. The SHSO will maintain egress and access to the established areas at all times in accordance with Section 8.0 of the SSHASP. Confined space entry operations will be performed in accordance with Section 13.0 of the SSHASP.

At a minimum, CODE will:

1. Conduct initial removal of bulk liquids, solids, and residues from trenches, pits, and sumps with dry mechanical methods consisting of hand scraping, shoveling, vacuuming or other similar means. Material removed will be containerized separately based on origin and waste compatibility.
2. Use a 2,500 to 5,000 PSI water blast system to clean the surfaces of trenches, pits, and sumps. Splashback will be kept to a minimum. The SHSO will determine if the use of detector shrouds or other means of control are required for worker protection and/or liquid containment. Wash waters from this operation will be recycled and reused whenever possible.

CODE will conduct cleaning in a manner that will minimize recleaning due to cross-contamination between cleaned and uncleaned areas. Cleaned areas will be inspected and verified as described in Sections 5.7.3 of this Plan. The results of these inspections will be provided to the Group's Field Representative in accordance with the Specifications.

Once verification has been obtained, holes will be driven through the bottom so water will drain and the cleaned pits, sumps and trenches will then be backfilled with approved, imported fill in accordance with Section 5.13.

Wastes, including wash water, from this operation will be collected, segregated, managed, and disposed in accordance with the approved T&D Plan. Waste characterization, and analysis if necessary, will be conducted in accordance with the approved Sampling and Analysis Plan. All drums and containers used to store waste will be labeled in accordance with applicable TSCA and RCRA regulations.

### **5.7.3 Concrete Surface Decontamination**

## **Code**

CODE will decontaminate existing concrete surfaces including floors, walks, walls, and structures in accordance with Specification Section 02135 and as follows.

1. Examine the site to verify the extent of concrete decontamination on all exposed surfaces within the project Work area. Confirm that the surfaces and the Site conditions are ready to commence with the work.
2. Prepare for decontamination as follows:
  - A. Disconnect and cap existing utilities within decontamination areas as necessary.  
*water, sewer, storm water*
  - B. Erect and maintain temporary partitions to prevent spread of dust, mist and water.
  - C. Protect existing materials and structures which are not to be decontaminated.
  - D. Prevent movement of structure; provide bracing and shoring as necessary.
  - E. Mark location of utilities, if applicable.
  - F. Conduct decontamination activities to minimize interference with adjacent operations.
  - G. Maintain protected egress and access at all times.
3. Decontaminate prepared surfaces via sweeping. If necessary, swept surfaces will be pressure-washed. Cleaning will be conducted in a manner that minimizes recleaning due to cross-contamination between cleaned and uncleaned areas. CODE will minimize the amount of wastewater generated that requires disposal. Wash waters will be recycled/reused whenever possible.

Proceed with decontamination until the concrete surface is clean. According to the Specifications, "clean is defined as when viewed without magnification, it is free of all visible impacts and/or waste except that residual staining from debris and waste consisting of light shadows, slight streaks, or minor discoloration, and debris and waste in cracks, crevices and pits may be present provided that such staining and waste and/or debris in cracks, crevices, and pits shall be limited to no more than 5 percent of each square inch of surface area". Once clean, request verification from the Group's Field Representative. The Group's Field Representative will verify decontamination and cleaning through visual inspection and/or the collection of concrete core samples for laboratory verification.
4. Contain decontamination residuals and fluids in suitable drums, containers, or tanks. Label all drums and containers in accordance with RCRA and or TSCA regulations.
5. Perform waste characterization as described in the approved Sampling and Analysis Plan.
6. Manage and dispose of waste in accordance with the approved T&D Plan.

#### 5.7.4 Metal Surface Decontamination

## Code

The metal surfaces of USTs, ASTs, and process equipment will be decontaminated in accordance with Specification Section 02136 and as described herein.

1. Examine the site to verify the metal surfaces to be cleaned and its locations prior to start of work. Confirm that the surfaces and the Site conditions are ready to receive the work.
2. Prepare for decontamination as follows:
  - A. Provide, erect, and maintain temporary barriers to protect personnel working in area.
  - B. Disconnect and cap existing utilities within decontamination areas as necessary.
  - C. Erect and maintain temporary partitions to prevent spread of dust, mist, and water from migrating from the area.
  - D. Protect existing materials, structures, and equipment that are not to be decontaminated.
  - E. Prevent movement of structure--provide bracing and shoring as necessary.
  - F. Mark location of utilities, if applicable.
3. Conduct decontamination activities to minimize interference with adjacent structures and equipment. Conduct operations with minimum interference to site accesses. Maintain protected egress and access at all times.

Wipe surfaces with a rag or sorbent pad. If necessary, pressure-wash to achieve required decontamination. NOTE: CODE will minimize the amount of wastewater generated that requires disposal. Decontamination residuals will be collected and contained in suitable containers.

Proceed with decontamination until the metal surface is clean. According to the Specifications, "clean is defined as when viewed without magnification, it is free of all visible impacted debris and waste except that residual staining from debris and waste consisting of light shadows, slight streaks, or minor discoloration, and debris and waste in cracks, crevices and pits may be present provided that such staining and waste and debris in cracks, crevices, and pits shall be limited to no more than 5 percent of each square inch of surface area".

4. Contain decontamination residuals and fluids in suitable drums, containers, or tanks. Label all drums and containers in accordance with RCRA and or TSCA regulations.
5. Perform waste characterization as described in the approved Sampling and Analysis Plan.
6. Manage and dispose of waste in accordance with the approved T&D Plan.

#### **5.7.5 Lead Based Paint Removal**

Loose lead paint will be removed and staged in accordance with Specification Section 02137 and as described herein.

1. Examine the site to verify areas requiring lead paint removal. Confirm that the Site Conditions

## **Code**



are ready to receive the work.

- A. Examine each area prior to initiation of work to determine proper exclusion zones and the amount of general refuse to be removed prior to lead paint removal.
  - B. Verify that the accumulation area is prepared to receive the anticipated waste generated prior to disposal.
2. Prepare for removal as follows.
- A. Place 6 mil plastic sheeting across all floors beneath walls and ceilings requiring lead paint removal such that all lead debris will be captured. Overlap all layers of plastic sheeting by a minimum of 1 foot and secure seam with adhesive tape.
  - B. Establish a decontamination area outside of the exclusion zone in accordance with the SSHASP.
  - C. Remove miscellaneous debris from area before starting lead paint removal.
3. Remove lead paint as follows.
- A. Lightly spray a mixture of water and commercial-grade soap, or similar surfactant, on walls to be scraped to dampen surface and minimize airborne particulate generated during the scraping process. Do not over-spray areas or accumulate water in the exclusion zone. Lead Paint removal will be confined to only paint that is loose. Loose paint is any paint that is flaking, bubbled, or otherwise separated from the surface to which it was applied.
  - B. Scrape wall and surfaces to remove loose paint. Do not remove all paint from all surfaces; remove only loose paint.
  - C. Lightly spray loose paint removed and accumulated on plastic sheeting with the water and soap mixture to minimize dust.
  - D. Roll up plastic sheeting with the lead paint debris.
  - E. Place rolls of plastic sheeting and paint debris in containers.
  - F. Verify area cleanup via visual inspection.
  - G. Notify the Group's Field Representative that the area is ready a verification inspection. Make notification and obtain verification confirmation from the Group's Field Representative prior to removing any dust barriers.
  - H. Remove dust barriers (if applicable) and place plastic sheeting and PPE into same containers.
  - I. Maintain an inventory of wastes container and staging locations.
4. Contain wastes in suitable drums and containers. Label all drums and containers in accordance with RCRA and or TSCA and State Waste Management regulations.

## Code

5. Perform waste characterization as described in the approved Sampling and Analysis Plan.
6. Manage and dispose of waste in accordance with the approved T&D Plan.

#### **5.7.6 Process Piping and Waste Line Draining and Decontamination**

Process lines will be drained and decontaminated in accordance with Specification Section 02141 and as described herein.

1. Examine site to verify items to be drained and cleaned. Confirm that the accumulation/temporary storage area is prepared to receive the anticipated quantity of liquids and residuals from the piping decontamination operation.
2. Prepare for the operation as follows.
  - A. Trace each process line, and include contents of piping (if known).
  - B. Prepare work area(s) and provide, erect, and maintain temporary barriers to protect uncontaminated areas.
  - C. Conduct operations with minimum interference accesses. Maintain protected egress and access at all times.
  - D. Obtain DOT-approved drums and tanks for transportation and storage.
  - E. Provide spill response equipment as necessary.
  - F. Set up required decontamination and staging area(s).
3. Drain and decontaminate the process lines as follows.
  - A. Drain product back to source area as much as possible. Prepare material for waste disposal in accordance with the approved T&D Plan.
  - B. Verify most appropriate low spots to drain lines.
  - C. Drain liquids from low spots into suitable, properly labeled drum, containers, or tankers.
  - D. Clean lines by flushing with water, if required.
4. Contain wastes in suitable drums, containers, or tankers. Label all drums and containers in accordance with RCRA and or TSCA regulations.
5. Perform waste characterization as described in the approved Sampling and Analysis Plan.
6. Manage and dispose of waste in accordance with the approved T&D Plan.

#### **5.7.7 AST Decontamination and Removal**

## **Code**

Aboveground storage tanks will be decontaminated and removed in accordance with Specification Section 02131 and as described herein. Pursuant to the Specification Section 02131, Part 1.8.G, AST decontamination and removal activities will consist of the following:

1. Consolidate contents with other tank materials in central location approved by the Group's Field Representative.
2. Sample consolidated materials.
3. Remove and transport AST contents (liquid and sludges) for disposal/treatment.
4. Purge, inert, and/or vent AST as necessary.
5. Pressure wash interior of AST.
6. Purge and clean all associated piping.
7. Clean and decontaminate AST secondary containment system (if applicable).
8. Scrap tank and steel appurtenances.
- \* 9. Remove all aboveground piping.
10. Remove the aboveground overhead pipe support system.

The above work will be conducted in accordance with applicable OSHA, federal, state and local rules and regulations, including applicable API publications. Air monitoring to test AST atmospheres and surrounding area for flammable vapors will be conducted by the SHSO in accordance with Section 7.0 of the SSHASP. The contents of each AST will be sampled and analyzed in accordance with the approved Sampling and Analysis Plan prior to removal.

CODE Site Management will notify the Group's Field Representative at least three (3) working days before commencing AST content removal operations. AST decontamination and removal will be performed as follows.

1. Inspect the ASTs and associated piping for the presence of suspect ACM. NOTE: Inspection will be performed by an individual qualified by formal training and practical experience to identify suspect ACM. If suspect ACM are identified, sample and test materials in accordance with EPA 600/M4-82-020.
2. Verify that the ASTs and Site conditions are prepared to receive the work. Confirm that the temporary storage area and waste containers are prepared to receive the anticipated quantity of waste scheduled.
3. Remove AST liquid and sludge contents and bulk for off-site disposal in accordance with the approved T&D Plan. NOTE: Only compatible materials will be placed within the same container. For example, compatible liquid contents containing 50 ppm or less total PCBs will be stored bulked together. Compatible liquid contents with concentrations of total PCBs greater than 50 ppm will be stored separately.

CODE will exercise extreme care in removing materials from ASTs. Only non-sparking tools

## **Code**

will be used to access the ASTs. Sources of ignition will be eliminated from areas where potentially flammable vapors may be present or may travel to. Explosion-proof or air-driven pumps bonded to the AST or otherwise grounded will be used to remove material. If the material is not pumpable a Vac-Truck will be utilized to remove the sludge. In the unlikely event that a Vac-Truck can not remove the sludge the tank will be cut, the top portion above the sludge removed and an excavator will be utilized to remove the sludge. Any spills or leaks will be handled in accordance with the Spill Containment Plan (included in SSHASP). Hoses will be removed after transfer to prevent siphoning.

4. Dispose of characterized material in accordance with the approved T&D Plan.

## 5.8 SURFICIAL RESIDUAL CLEANUP

The courtyard area surrounding the furnace between Buildings 1 and 4 contains an accumulation of waste ash and product deposits. CODE will consolidate, characterize, load, and properly dispose of this material prior to initiating demolition or UST removal activities in the immediate area. Characterization will be conducted in accordance with the approved Sampling and Analysis Plan. Material consolidation, loading, and disposal will be conducted as described in the approved T&D Plan.

## 5.9 METHODS FOR BUILDING DEMOLITION

Designated buildings, structures, bollards, utility poles, interior fence and posts, above ground storage tanks, underground storage tanks (post removal), septic tanks (post removal), and limited equipment will be dismantled and/or demolished in accordance with Specification Section 02322 and the subsections that follow. Buildings will be demolished to the concrete pad. Per the Specifications; the concrete slabs will be left in place and intact.

### 5.9.1 Dismantlement and Demolition Procedures

A qualified subcontractor (see Section 2.2) will dismantle and demolish the site structures identified in Section 1.0 of this Plan using the equipment listed in Section 4.0 once decommissioning activities within each structure are complete.

Conventional means will be used to dismantle/demolish the structures. For example, roofs will be removed with the PC 400 Grapple (or equal). Masonry will be pushed onto the slab of the building where it will be sized with the PC 400 Hammer (or equal) prior to loading with the WA 380 Loader (or equal).

The anticipated schedule for demolition is as follows:

Building No.	No. of Days to Dismantle/Demolish
1	4
2	2
3	4
4	4
5	½
6	3
7	3½
8	2
9	2
Docks	3 Days for Removal

## Code

Sequencing will be as indicated in the Project Schedule. Generally, demolition will start at the northwest Site corner along Routes 1 and 9 and working back towards the southeast Site corner along the NJ Turnpike.

Existing structures to remain will be protected using industry-accepted practices. If adjacent structures appear to be in danger, operations will immediately cease and the Group's field representative will be notified. All operations will be conducted with minimum interference to public or private accesses. Egress and access to the site and work areas will be properly maintained at all times.

Prior to commencing demolition activities, CODE and/or its demolition subcontractor will:

1. Obtain and submit copies of all required permits and inspection certificates or other code compliance documents from the code enforcement authorities to the Group's Representative.
2. Verify that surfaces and the Site conditions are ready to commence with the Work.
3. Provide, erect, and maintain temporary barriers to protect employees and personnel.
4. Locate, and (if deemed necessary or as required by local codes and authorities) disconnect, remove, and cap existing utilities within the demolition areas.
5. Protect existing materials, structures and equipment that are not to be demolished.
6. Mark location of existing utilities – including the Texas Eastern Gas transmission lines that transect the Northeastern portion of the site. Every effort will be made to protect these lines from damage.

#### **5.9.2 Demolition Material Staging and Sorting**

Demolition material will be brought to the staging area shown in Appendix 2, Site Lay-Out Map. Once in the staging area, material will be sorted into one of the following categories:

- ξ Wood,
- ξ Steel/Metal,
- ξ Concrete, and
- ξ Demolition Debris.

Material will be staged in separate piles pending off-site disposal/recycling. In accordance with CODE's approved T&D Plan, all concrete will go to a recycler. All wood and demolition debris will be sent to an approved landfill. All steel will go the demolition subcontractor's Newark, New Jersey facility (Metal Management Northeast, Inc.) where it will be recycled and shipped to various mills throughout the world.

#### **5.9.3 Miscellaneous Debris and Other Waste Material**

CODE will characterize and dispose of the miscellaneous debris and other waste material located on site as part of this contract. CODE will load, transport, and dispose of the miscellaneous debris, and/or clearly segregate the miscellaneous debris prior to initiating demolition activities. Building demolition material WILL NOT be mixed with the improperly dumped miscellaneous debris.

## **Code**

#### 5.9.4 Transportation and Off-Site Disposal

Demolition material, miscellaneous debris and other waste material will be transported off site for recycling and/or disposal at approved facilities in accordance with CODE's approved T&D Plan. All off-site shipments will be tracked using the material tracking system identified in CODE's T&D Plan.

#### 5.10 UST REMOVAL PROCEDURES

CODE will remove the following underground storage tanks in accordance with Specification Section 02115:

- 7:14B-14 N3 - Tech Reg. → ALL Piping & TANK
- § Four USTs located near the south east side of Building 8. These tanks are reported to have contained Toluene, Cellusolve Acetate, Gasoline, and Diesel Fuel. Tank sizes are unknown.
  - § Two USTs located at the end of the furnace conveyor North-Northeast of Building 2. These tanks are reported to have contained rinse water and ash from the furnace cooling operations. Tank sizes are unknown.
  - § One 5,000 gallon UST located near the eastern side of Building 1 at the end of the water separator and settling trough. The tank was reportedly used as a wastewater settling tank. → CWA

It is CODE's understanding that the contents of these tanks were pumped and disposed at an earlier date. Because the tanks have reportedly re-filled with storm and groundwater, CODE will characterize and remove the liquid contents of each tanks prior to UST removal. Samples will be collected and analyzed from each tank in accordance with CODE's approved Sampling and Analysis Plan. Analytical results will be used to determine disposal options. Removed liquid will be properly disposed off-site in accordance with CODE's approved T&D Plan.

Pre-treatment Standard NPDES Permit to discharge 307bcl 402 ?

Following liquid content removal and disposal, CODE will excavate and lift the UST structures by backhoe or other appropriate means, and place them above grade for inspection by the Group's Field Representative who will photo document the status of the tank conditions with respect to rusting, ruptures, and areas of potential leaks.

The tank surfaces (exterior and interior) will be decontaminated utilizing high pressure washing (see Section 5.6.4). The tanks will be cleaned intact or mechanically opened at the discretion of CODE Site Management. Solids (if any) will be collected and contained to allow sampling and characterization in accordance with the approved Sampling and Analysis Plan. Following characterization, solids will be packaged and properly disposed off-site in accordance with CODE's approved T&D Plan.

Once cleaned, the USTs will be cut in to manageable pieces and recycled with other scrap metal leaving the site.

If required, CODE will provide access and assistance to the Group's Field Representative for post removal excavation sample collection. Once approval has been obtained from the Group's Field Representative, CODE will backfill the UST excavations as described in Section 5.12 of this Plan utilizing approved, imported backfill.

The SOP for UST removal is as follows:

## Code

1. Collect and analyze waste characterization samples in accordance with the approved Sampling and Analysis Plan.
2. Notify the Group's Field Representative at least 5 working days prior to excavating from the removal of the USTs. CODE will work with the Group's Representative to obtain necessary UST closure permits.
3. Test UST atmosphere and surrounding area for flammable vapors in accordance with Section 7.0 of the SSHASP.
4. Drain as much of the product as possible from associated piping back in to UST. Pump remaining product from piping by vacuum extraction or other approved means. Remove as much underground piping as needed to remove UST. Remove all associated above ground piping, pumps, and ancillary equipment. NOTE: Vent piping is to remain connected until the UST is purged.
5. Access the tank through manway or other tank opening. Use explosion-proof air driven pumps or vacuum methods to remove liquid contents. NOTE: Pumps and/or trucks must be bonded to the tank or otherwise grounded. Sample transport liquids off site for disposal at an approved disposal facility in accordance with the approved T&D Plan.
6. Purge, inert, or vent the UST to remove flammable vapors in accordance with API recommended Practice 1604. Conduct air monitoring in accordance with Section 7.0 of the SSHASP to verify that venting, purging, or inerting has removed flammable vapors. Plug or cap accessible openings.
7. Excavate soil surrounding and adjacent to the UST to expose the UST and allow for safe removal of the tank. Continue excavation to remove visually contaminated soil. Stockpile visually contaminated soil separate from non-contaminated soil. Characterize visually contaminated soil for off site disposal in accordance with the approved Sampling and Analysis Plan. Transport and dispose of material at an approved off site facility in accordance with the approved T&D Plan. NOTE: In accordance with the Specifications, excavation will be performed in the presence of the Group's Field Representative.
8. Following excavation, lift the UST out of excavation using non-ferrous slings or other method approved by the Group's Field Representative.
9. The tank will be accessed for interior cleaning through the manhole (if present). If no manhole is present, CODE will cold cut a 30" x 30" accessway in the top of the tank. The tank will be entered under a confined space entry (CSE) permit in accordance with Section 13.0 of the SSHASP. Cleaning will be conducted in accordance with applicable API and ANSI standards as follows:
  - A. Scrape away any remaining surface sludge.
  - B. Pressure wash the tank interior using a high pressure washer.
  - C. Remove cleaning residue and sludge using explosion-proof air driven pumps or vacuum methods. NOTE: Pumps and/or trucks must be bonded to the tank or otherwise

## Code

grounded. Transport residue off site for disposal at an approved disposal facility in accordance with the approved T&D Plan.

NOTE: The SHSO will test the atmosphere inside the tank for flammable vapors in accordance with Sections 7.0 and 13.0 of the SSHASP. Air monitoring will be performed continuously during all cutting, entry, cleaning, and removal operations.

10. Obtain approval from the Group's Representative to backfill the excavation. Backfill the excavation as described in Section 5.132 of this Plan.
11. Recycle/dispose of waste associated with UST removal in accordance with the approved T&D Plan.

#### **5.11 SEPTIC TANK REMOVAL METHODS**

CODE will remove the three former septic tanks/pump stations in accordance with the Plans and Specifications. The liquid contents of each tank will be characterized as described in CODE's approved S&A Plan and removed prior to septic tank removal. This material will be properly disposed of off site at an approved facility in accordance with CODE's approved T&D Plan.

Excavation, removal, and backfill will be consistent with the methods used to remove the USTs (see Section 5.10). Concrete surfaces of the septic tanks will be decontaminated as described in Section 5.7.3, appropriately sized, and properly disposed/recycled.

#### **5.12 MATERIAL HANDLING AND DISPOSAL METHODS**

Material handling and disposal will be conducted in accordance with Specification Section 02120 and CODE's approved T&D Plan. Sample collection and analysis needed to sufficiently characterize the waste for disposal/recycling purposes will be conducted in accordance with CODE's approved S&A Plan.

CODE understands that it will be responsible for the transportation and disposal and/or recycling of all waste material and demolition debris generated in the course of completing the Work. This could include non hazardous waste streams such as wood, brick, concrete block, metal, concrete, and miscellaneous demolition debris as well as potentially hazardous and RCRA and or TCSA regulated waste streams generated from building decommissioning activities. Where possible, CODE will consolidate and bulk ship like materials to approved disposal and/or recycling facilities.

#### **5.13 BACKFILL**

Designated areas will be backfilled in accordance with the Contract Drawings and Specification Section 02318 and as described herein. Backfill material used in support of this Project will comply with the Product requirements set forth in Specification Section 02318, Item 2.1.

Backfill will be placed in lateral lifts no greater than 12 inches in depth. Placed material will be compacted utilizing roller-compaction equipment, excavator-mounted vibratory compactor, or other appropriate means to a minimum 95% standard proctor dry density. Physical laboratory and field testing will be conducted in accordance with the approved QA/QC Plan.

#### **5.14 DECONTAMINATION PROCEDURES**

## **Code**



Personnel and equipment decontamination procedures to be employed when exiting contaminated work areas at this project site are defined in Section 9.0 of CODE's SSHASP.

### **5.15 DEMOBILIZATION AND CONTRACT CLOSE-OUT**

Demobilization and contract close-out will be conducted in accordance with Specification Section 01700 and as outlined in the subsections that follow.

#### **5.15.1 Project Record Documents**

All specified project documentation will be maintained at the site in a separate file. This documentation will remain at the site in CODE's trailer from mobilization through demobilization and will, at a minimum, include one copy of drawings, Specifications, addenda, reviewed shop drawings, change orders, other modifications to the contract, field test records, all pertinent correspondence, and drawings reflecting "as-built" conditions.

The as-built marked prints showing work in progress will always be available for inspection. As work is completed in each area, the marked drawings will be submitted for approval. Final as-built drawings will be generated and kept on-site. Any samples and test results will be maintained in a similar manner.

At project conclusion, these documents will be gathered with a cover letter of explanation and delivered to the Group's Representative. This will be done prior to issuance of the final acceptance certificate allowing final payment.

#### **5.15.2 Punch List and Final Inspection**

At the final construction conference, CODE will request the final inspection. The Group's Representative then will prepare a "punch list" of activities or items that need to be addressed for project close-out. CODE will promptly initiate work to complete all items on the punch list. When this work has been completed to the Group's Representative's satisfaction, the certificate of substantial completion will be issued.

Final site clean-up procedures and demobilization then will be accomplished by CODE. Final inspection will be performed by the Group's Field Representative final clean-up and demobilization. If satisfied, the Group's Field Representative will issue the final acceptance certificate.

#### **5.15.3 Discontinuance of Utilities**

At issuance of certificate of substantial completion, CODE will begin to disconnect all utilities brought to the project site. Final payments will be made to each supplier, and proof thereof will be supplied to the Group's Representative.

As clean-up activities are finalized, all support materials (i.e., safety fencing, signage, erosion control devices, etc.) will be disposed of off-site, and final grading and restoration operations will begin. All additional items installed by CODE (barriers, utility supports, etc.) then will be removed as required.

#### **5.15.4 Affidavit in Regard to Liens**

At the receipt of the certificate of substantial completion, CODE will make final payments to all subcontractors and suppliers no longer being utilized. With the final payments CODE will require the

## **Code**

suppliers (materials and services) to complete and return a release of liens against this project. A copy of these releases will be part of the final report package issued to the Group's Representative prior to generation of the final acceptance certificate.

## Code

# **APPENDIX 1**

## **Resumes of Key Project Personnel**

**Code**

**CONSTRUCTION OPERATIONS PLAN**  
**Bayonne Barrel & Drum Site, Decommissioning & Demolition**

**APPENDICES**  
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## **RICHARD J. ABRAMO**

### **Project Sponsor**

#### **EDUCATION:**

B.S., *Biology (Special Emphasis Chemistry)*, St. Francis College, 1980

#### **EXPERIENCE:**

Mr. Abramo has over 22 years' experience in the hazardous waste industry. During that period he has participated in and/or managed hundreds of emergency response, decontamination, Superfund and State-mandated remediation projects.

***President • Code Environmental Services, Inc. • Carteret, New Jersey • 1989 - Present.***

Mr. Abramo manages all corporate activity and is directly responsible for profit and loss status, budgeting, estimating, technical review, regulatory interaction and purchasing. He also is responsible for contract review and negotiation, client interface, job performance, QA/QC, equipment, personnel and risk evaluation.

***Regional Operations Manager • ENSCO Environmental Services, Inc. • Edison, New Jersey • 1986 - 1989.***

Mr. Abramo established a company presence in the New York/New Jersey metropolitan area and was responsible for contract operations, regional profit and loss status, estimating, budgeting, personnel management, accounting and purchasing.

Mr. Abramo was instrumental in establishing ENSCO's only TSDF for handling and processing lab packs. He personally took ENSCO's Dalton, Georgia facility from the earliest permit submittal stage through facility construction and finally to actual start-up.

Another area in which Mr. Abramo was actively involved was ENSCO's transportable incineration program. As operations manager of a \$9 million on-site incineration project for the United States Air Force in Gulfport, Mississippi, Mr. Abramo oversaw RCRA Part B equivalent permit submittal, site preparation, incinerator mobilization and construction, incinerator trial burns, contaminated soils excavation, and all other project activity associated with the on-site incineration of over 35,000 tons of dioxin-laden soil.

Mr. Abramo also took a key role in preparing a Modified RCRA Part B Certification for ENSCO's \$12 million transportable incineration project at the Lenz Oil Superfund site in Lamont, Illinois.

Based on his experience at the Gulfport and Lenz Oil sites, Mr. Abramo was assigned to direct ENSCO staff engineers in modifying the incineration system to address real-time field application.

***District Manager, Project Manager, QC Supervisor, Emergency Response Coordinator • CECOS Environmental, Inc. • Staten Island, New York • 1980 - 1986.***

Mr. Abramo managed CECOS' New York City district office and, in addition to hundreds of emergency response projects, was responsible for numerous, multi-million dollar remediation contracts.

## **Code**

**EXPERIENCE (Continued):**

For example, Mr. Abramo provided contract interpretation and overall supervision of a \$4.5 million drum removal project at Ciba-Geigy Corporation's New Jersey facility. By contract end, 15,475 waste drums buried in the client's cell number two landfill had been excavated and disposed of off-site.

Mr. Abramo also managed the \$3.95 million Resolve, Inc. Superfund site remediation conducted under the direction of the U.S. Army Corps of Engineers. Operations involved the excavation, transportation and disposal of 14,000 cubic yards of PCB/organic-contaminated soil.

Mr. Abramo was assigned key roles during both phases of the Lehigh Electric Facility Superfund Site remediation project. He was the Phase I QC supervisor/emergency response coordinator and the Phase II project manager. Phase I entailed removal and disposal of 1,500 PCB transformers and 1,200 PCB capacitors. Phase II involved excavation of 11,500 cubic yards of PCB-contaminated soil, demolition, backfill, final grading, topsoil and seeding. This was the first Superfund site to be de-listed from the NPL and was remediated for approximately \$3.6 million.

As project manager responsible for the construction of three 600,000 gallon settling basins at the Exide Mill Pond site, Mr. Abramo supervised the removal and dewatering of 4,100 cubic yards of pond bottom sediments. This included coordinating work between a number of independent subcontractors responsible for dredging and dewatering. Mr. Abramo managed site operations and directed final contract close-out.

**CERTIFICATIONS:**

Hazardous Waste Supervisor per Requirements of 29 CFR 1910.120.

**SPECIAL TRAINING:**

40 Hour OSHA Health & Safety Training Course for Hazardous Waste Site Activities with Annual Updates.

8 Hour Supervisor's OSHA Health & Safety Training Course for Hazardous Waste Site Activities.

**Code**

## **THOMAS M. TOMASSETTI**

### **Project Manager**

#### **EDUCATION:**

B.S., *Earth Physical Sciences (Geology)*, Kean College, 1990.  
A.S., *Construction Technology*, San Antonio College, 1985

#### **EXPERIENCE:**

Mr. Tomassetti has over 19 years' experience in the environmental and general construction industries. In addition to contract supervision, he has extensive estimating and computer operations experience.

***General Manager (1994 - Present), Operations Manager (1993 - Present), Senior Estimator (1991 - 1993) • Code Environmental Services, Inc. • Carteret, New Jersey • 1991 - Present.***

Mr. Tomassetti maintains fiscal responsibility for all CODE operations. He also is responsible for establishing and implementing company policy and procedure, evaluating project QA/QC and profitability, reviewing contracts, obtaining required insurance and bonding, reviewing and approving subcontracts, and evaluating proposals before release. In addition, Mr. Tomassetti oversees CODE's computer operations system conducting personnel training, computer maintenance, and upgrading of both network & software programs.

As operations manager, Mr. Tomassetti was responsible for personnel management, purchasing, project scheduling, job set-up, ensuring project-specific equipment/manpower requirements were met, and monitoring project performance.

Mr. Tomassetti has managed/administered a wide variety of remediation contracts including facility decontamination/demolition, soil excavation and slag cover installation projects for Reichhold Chemicals company, containerized material handling/disposal and contaminated soil excavation projects at the Scoville Brass site in Connecticut, and tank farm closure, contaminated stream excavation and vapor extraction system soil remediation pile construction projects at a United Technology Corporation site in New Jersey.

Mr. Tomassetti recently served as project manager of the Boarhead Farms Superfund Site Remedial Action Project in Upper Black Eddy, Bucks County, Pennsylvania. Mr. Tomassetti prepared required Project Plans and Submittals and supervised remedial operations which included monitoring well abandonment and installation; demolition and building restoration; contaminated soil excavation; drum handling; and waste characterization, transportation, and disposal. The project was completed on time--in spite of continued, heavy rainfall--and received high praise from involved EPA Region III officials.

Mr. Tomassetti also served as project administrator of a \$2.1 million lagoon capping and closure contract in Hazleton, Pennsylvania. As such, he coordinated submittals, scheduled site operations, prepared the budget, secured required materials, supplies and equipment, executed subcontract agreements, and managed site personnel in the performance of contract operations.

Mr. Tomassetti managed site operations at CODE's \$250,000 UST removal contract for the New Jersey Department of Transportation in Sparta, New Jersey. In addition to the tank removal work, Mr. Tomassetti supervised the construction of a road and a concrete storm drainage system.

Mr. Tomassetti previously served as CODE's senior estimator.

## **Code**

**THOMAS M. TOMASSETTI**

Page Two

**EXPERIENCE (Continued):**

***Cost Engineer/Foreman • Yonkers Contracting Company • Yonkers, New York • 1985 - 1991.***

Mr. Tomassetti joined Yonkers (one of the nation's largest contractors) as a project foreman in the Summers of 1985 and 1986. He became a full-time foreman in 1987 and was later promoted to cost engineer.

As cost engineer, Mr. Tomassetti played a key role in the \$98 million Route 18 construction project for the NJDOT. During the project, three miles of roads were constructed through sensitive wetlands. As foreman, Mr. Tomassetti supervised work associated with the \$96 million Route 78 road project through the Watchung Wildlife Preserve.

Additional NJDOT work to which Mr. Tomassetti was assigned included management of the Route 24 Morristown project which included wetlands management and construction through PCB contaminated areas. Mr. Tomassetti was responsible for all environmental work and development of computer cost programs.

***General Job Foreman • Cris-Tech Associates • 1984 - 1985.***

Mr. Tomassetti served as general job foreman of Cris-Tech's \$10 million Southland Corporation project which involved the installation of three pumping stations and a storm water recovery system with two lined retention ponds.

**CERTIFICATIONS:**

Hazardous Waste Supervisor per Requirements of 29 CFR 1910.120.

**SPECIAL TRAINING:**

40 Hour OSHA Health & Safety Training Course for Hazardous Waste Site Activities with Annual Updates.

8 Hour Supervisor's OSHA Health & Safety Training Course for Hazardous Waste Site Activities.

**Code**

## **LINO FERRARA**

### **Site Superintendent**

#### **EXPERIENCE:**

Mr. Ferrara has over five years' experience in the environmental industry and over 20 years' experience in the general construction industry. He is an experienced supervisor who has worked on a wide variety of general construction, masonry, environmental construction, remedial action, earthmoving, contaminated soils excavation, hazardous waste disposal, and facility decontamination/demolition projects.

#### ***Site Supervisor • Code Environmental Services, Inc. • Carteret, New Jersey • 1998 - Present.***

Mr. Ferrara oversees remedial field operations. His duties include personnel supervision, construction quality control, site safety, preparing/maintaining required reports and job costing data, coordinating off-site T&D, and acting as site liaison between CODE and its clients.

#### **Representative Experience:**

- Supervised remedial action operations at the Boarhead Farms Superfund Site in Upper Black Eddy, Oversaw Bucks County, Pennsylvania. Oversaw monitoring well abandonment and installation; demolition and building restoration; contaminated soil excavation; drum handling; and waste characterization, transportation, and disposal operations. Contaminants of concern at the site included various metals, volatile organic compounds, and semivolatile organic compounds.
- Supervised excavation and off-site disposal of soil contaminated with hexavalent chromium at the College Towers Apartments (Site 154) in Jersey City, New Jersey. Also oversaw installation of sheet piling to depths of 15 fbg; cleaning of exterior basement walls adjacent to the soil excavation operation; monitoring well abandonment; and site restoration including provision of sidewalks, exterior lighting, fences/gates, swimming pools, patios, sheds, and landscaping.
- Supervised hazardous and non-hazardous soil excavation, concrete slab demolition, structural decontamination, waste handling, and site restoration operations in support of a \$4.3 remedial action project at the Chemsol, Inc. Superfund Site in Piscataway, New Jersey. Contaminants of concern at the Site included PCBs, VOCs and Lead.
- Supervised operators and laborers involved in the construction of a cap designed to immobilize sediment/fill under an existing building on the Rahway River at the Cytec Industries Site in Linden, New Jersey.
- Supervised AST/UST removal operations, including confined space entry and contaminated soils excavation/off-site disposal, at multiple sites in support of the Atlantic City Brigentine Connector Tunnel construction project in Atlantic City, New Jersey.
- Supervised remediation of a 4' x 4' x 10' concrete utility access pit containing chemical constituents at non-hazardous levels at Cytec's Stamford, Connecticut facility. Oversaw removal of a cinder-block, partition wall; excavation and off-site T&D of contaminated soil; and work area restoration.

## **Code**



**LINO FERRARA**

Page Two

**EXPERIENCE (Continued):**

- Served as T&D Coordinator on the Ravenswood site remediation project. Responsible for obtaining waste product approvals, scheduling off-site transportation and disposal, completing required paperwork, and overseeing loading operations.

**Owner/Project Supervisor • Self-Employed Contractor • Scotch Plains, New Jersey • 1982 - 1998.**

Mr. Ferrara operated a contracting business which specialized in masonry work and general construction. As the business owner he was responsible for estimating, vendor negotiations, purchasing, scheduling, supervision, construction quality control, site safety, job cost tracking, sales, marketing, price negotiations, change orders, and customer relations.

**EDUCATION:**

HS Diploma, Plainfield High School

40 Hour OSHA Health & Safety Training Course for Hazardous Waste Site Activities with Annual Updates

8 Hour OSHA Hazardous Waste Site Supervisor

Confined Space Entry OSHA Certification

**Code**

CONSTRUCTION OPERATIONS PLAN

Bayonne Barrel & Drum Site, Decommissioning & Demolition

APPENDICES

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**MARK P. GAMBUCCI**  
**Site Health and Safety Officer**

**EDUCATION:**

*Associate Degree, Electrical Construction, Williamsport Area Community Collage, 1975*

**EXPERIENCE:**

Mr. Gambucci has over 19 years experience in the field of hazardous waste remediation / emergency response and general construction. The majority of his experience has been in a supervisory capacity with emphasis placed on project management, health & safety and regulatory compliance. Relevant experience includes department and personnel management, environmental assessment audits, lagoon and landfill closures, underground storage tank closures, facility operations inspections, monitoring well installation/development/sampling, drum investigation/sampling, transportation and disposal. Initial and site-specific training including site-specific Health & Safety plan development, proposal writing and submittal procedures and federal, state and local permit acquisition.

***Health and Safety Officer • Code Environmental Services, Inc. • Carteret, New Jersey • 2001 - Present.***

Mr. Gambucci's duties as Senior Project Manager and SHSO include the onsite management of key construction projects including oversight of remedial activities, on site personnel and the site implementation of the Health and Safety Plan (site specific).

***Corporate Health & Safety Administrator/Training Director/Division Manager • ARTC Corporation • 1997 -2001.***

As Corporate Health & Safety Administrator / Training Director and a Division Manager for ARTC Corporation, Mr. Gambucci was responsible for the training and management of technical and field personnel involved in hazardous material handling and environmental remediation / emergency response and general construction projects. Duties included the management and implementation of the Corporate Health & Safety, Respiratory Protection, Hazard Communication, Training, Confined Space Entry, Lock-Out/Tag-Out and Health & Safety Programs. He also holds certification with the Pennsylvania Department of Environmental Protection (PADEP) as a Facility Operations Inspector/Underground Storage Tank Removals and he oversees the Storage Tank Division and Real Estate Services Divisions. With technical and consulting experience, Mr. Gambucci assisted ARTC and its clients with compliance and regulatory issues.

***Project Manager • Synergist Environmental Consultants • 1989 - 1997.***

As an associate with Synergist Environmental Consultants Incorporated, Mr. Gambucci was tasked with the following projects / roles:

***Environmental Site Assessments for:*** Lending institutions, Realtors, City, Municipalities, and the private sector.

- Phase I Assessments– Environmental Audits and compliance
- Phase II Assessments– Soil and Groundwater sampling protocols including Geo Probe work, Ground Penetrating Radar / Magnetometer Surveys, Soil / Groundwater Interface Identification.

**Code**

## MARK P. GAMBUCCI

Page Two

### **EXPERIENCE (Continued):**

- Phase III Remedial Action – Site Remediation Action Plans development and submittal. Contaminated soils and groundwater remediation services. Drum identification, sampling, transportation and disposal. Underground storage tank systems closures.

Waste Management for: Manufacturing and Industrial companies, U.S. Government, Municipalities and the private sector.

- Identification of waste streams / Regulatory Reporting
- Bill of Lading / Manifest writing
- Drum sampling, Identification, Inventory
- Transportation and Disposal Considerations
- Hazard Identification and Employee Communication Regulations
- PADEP FC- 1 Sampling protocols for disposal compliance

Certification Compliance Training for: United States Department of the Interior (National Parks Service) Industrial and Manufacturing Companies, Environmental Remediation Companies.

- 40-Hour Training Classes
- 8 and 16 Hour Refresher Training Classes
- Supervisor Training Classes
- 16 Hour Confined Space Entry Training Classes

Environmental Pilot Studies for: National Institute for Environmental Renewal (NIER)

- Effects of Acid Mine Drainage, Lackawanna River Basin Corridor
- Mobile Water Purification Systems
- Radon Gas Remediation Systems
- Global Positioning Satellite Systems for Hazardous Waste Haulers

**Project Supervisor, Foreman, Environmental Technician • Gilarde Environmental Management • 1984 to 1989.**

As an associate with Gilarde Environmental Management (GEM), Mr. Gambucci received valuable experience working on numerous projects through the United States at different positions and roles. He participated in seven Superfund Site clean-up projects, including the Marjol Battery site to which he was the Project Manager.

### **Key Projects:**

- *Marjol Battery* • Residential lead cleanup project, site stabilization / demolition project
- *Tonolli Corp. Superfund Site* • Lead excavation / stabilization project
- *Bell Landfill Superfund Site* • Landfill capping and leachate collection systems project
- *Brown Battery Superfund Site* • Lead cleanup / battery casing capping project
- *Pharmacia / Upjohn Site* • Polishing Lagoon Closure, floating cover technology
- *Potomac Power and Light / United Hauling and Rigging Site* • PCB Cleanup site

## Code

**MARK P. GAMBUCCI**

Page Three

**EXPERIENCE (Continued):**

- *Quantum Tank Farm Superfund Site* • PCB cleanup, aboveground tank decommission
- *Precision National Plating Corp. Site* • Chromic acid cleanup / building demolition

**SPECIAL TRAINING:**

- § 29 CFR 1910.120 Occupational Safety and Health Administration, Hazardous Waste Operations and Emergency Response - 40 Hour Certification
- § 49 CFR 172.704 Department of Transportation, Hazardous Materials Transportation, Safety & Compliance - 16 Hour Certification
- § 29 CFR 1910.146 Confined Space Entry, Supervisor Training – 16 Hour Certification
- § PADEP-Certified Facility Operations Inspector / Underground Storage Tank Remover
- § Certified Cathodic Protection Tester – 24 Hour Certification
- § American Red Cross, Certified First Aid / Adult CPR
- § Pennsylvania Real Estate, Real Estate Salesperson – 60 Hour Course
- § Pa Dept. of Conservation and Natural Resources (DCNR) – Certified Forest Fire Fighter
- § Northeast Training Institute, Certified Driller / Blaster – 120 Hour Course

**Code**

**FREDERICK C. ANDLAUER**  
**Project QC Officer/Field Chemist (Alternate SHSO)**

**EDUCATION:**

B.S., *Environmental Studies*, East Stroudsburg University, Pennsylvania, 1985.

**EXPERIENCE:**

Mr. Andlauer has over 17 years of experience in the analysis, handling and disposal of waste laboratory chemicals. He is highly skilled in waste consolidation, packaging, completion/review of inventory lists, manifests and labels, and drum tracking.

***Lab Pack Manager, Site Supervisor, Field QA/QC Officer • Code Environmental Services, Inc. • Carteret, New Jersey • 1989 - Present.***

As the company's lab pack manager, Mr. Andlauer is responsible for managing CODE's annual waste disposal contracts, supervising the company's team of project chemists, purchasing lab pack supplies, and updating/recording all current state and federal laws and regulations relating to the proper shipment and disposal of hazardous waste.

- Supervised CODE's \$600,000 per year annual lab pack contract with Rutgers, The State University of New Jersey. In addition to waste identification, handling, packaging, transportation and disposal, implemented creative bulking and recycling programs which have resulted in considerable cost savings for Rutgers.
- Supervised the packaging and disposal of large quantities of various mercury waste streams (i.e., broken mercury thermometers mercury compounds, and laboratory glassware) generated by Rutgers University at seven campuses and 14 field stations. The work was conducted as part of the company's multi-year service contract with Rutgers. Also detached from their mountings, and occasionally drained over 100 mercury filled manometers, barometers, x-ray tubes, bubble flasks, and a variety of other specialized instruments.
- Manage CODE's annual lab pack contract with FMC Corp. of Princeton, New Jersey. In support of this contract, provide quality control checks of client-packaged waste, conduct waste inventories, package "special" wastes such as dioxin-bearing material, and arrange transportation and disposal.
- Managed waste disposal contract for Pharmacontrol Corporation at its Private Formulations, Inc. facility in Edison, New Jersey. Directed CODE's chemists in implementing a company-designed lab pack and hazardous waste disposal program at this location.
- Supervised waste disposal contracts for the Paterson Board of Education (service contract to inventory, package and remove approximately 75 drums of lab pack and bulk quantity waste from four locations).
- Supervised multiple contracts for the U.S. Coast Guard to identify, transport and dispose of lab pack and maintenance chemicals, paint and other wastes from a former supply center in Brooklyn, New York.
- Managed service contract for and Envirobitech/Xienta, Inc. to inventory, package and dispose of lab pack wastes from a former biomedical research facility.

**Code**

**FREDERICK C. ANDLAUER**

Page Two

**EXPERIENCE (Continued):**

- Designed and implemented several mercury spill clean-up programs at various Rutgers University locations. Cleaned-up of spilled mercury from several broken thermometers in Hedley Laboratories building on the Cook campus. Collected free mercury and decontaminated a floor area and table surface at the Nelson Biology building on the Busch campus. Collected mercury which had burst from mercury thermometers and mercury containing flasks during a fire in a laboratory in the Busch campus Wright-Reiman laboratory building.
- Participated in the excavation and removal of over 30,000 cubic yards of PCB contaminated soil located at three Texas-Eastern sites in Linden, Lambertville, and East Hanover, New Jersey. As field chemist was responsible for the collection of post-excavation and waste classification samples.
- Participated in the excavation, transportation, and off-site disposal of 14,000 tons of PCB contaminated soils from the Goose Farm Superfund Site in Plumstead Township, New Jersey.

**Lab Pack Coordinator • ENSCO Environmental Services, Inc. • Amherst, New York • 1987 -1989.**

Mr. Andlauer's responsibilities included in-field identification of chemical and hazardous wastes for segregation and proper packaging, arranging for transportation and disposal of packaged wastes, facility clean-out and decontamination of affected rooms and equipment, and completing required paperwork and documentation. Served as field chemist/chemical technician on several PCB decommissioning projects which involved removal of PCB-containing electrical devices and equipment, surficial decontamination of PCB-contaminated surfaces, and excavation of PCB-contaminated soil.

**Field Analyst • Chemical Waste Management • Princeton, New Jersey • 1985 - 1987.**

Mr. Andlauer supervised the preparation of laboratory chemicals and bulk waste streams for shipment to disposal.

**Research Associate • East Stroudsburg University • 1985.**

In addition to his field-related experience, Mr. Andlauer studied the effects of acid precipitation in Southeastern Monroe County, Pennsylvania.

**SPECIAL TRAINING:**

40 Hour OSHA Health & Safety Training Course for Hazardous Waste Site Activities with Annual Updates.

8 Hour Supervisor's OSHA Health & Safety Training Course for Hazardous Waste Site Activities.

8 Hour USDOT HM 126F/181 Course given by Reactive & Explosive Materials Training Corporation at the Middlesex County Fire Academy, March 10, 1993.

**Code**

**HARRY H. ELIAS, P.E., CHMM**  
**Project Health and Safety Manager**

**EDUCATION:**

*B.S. Chemical Engineering, Drexel University, Philadelphia, PA. 1971*

**EXPERIENCE:**

Mr. Elias is responsible for providing technical direction and supervision in the areas of grant preparation for Brownfields investigations from NJDEP, property investigations, real estate transactions, environmental audits, remedial investigations, regulatory compliance, and engineering design for underground storage tank systems, groundwater treatment systems, and industrial wastewater treatment systems.

Mr. Elias has over 31 years of experience in the field of environmental/chemical design and management, working both in the consulting arena and the industrial sector. Mr. Elias' industrial experience includes specialty chemicals manufacturing, toll chemicals manufacturing, pharmaceutical manufacturing, major appliance manufacturing, and electroplating. He has conducted detailed investigations and evaluations of numerous Superfund sites and contaminated industrial sites around the country for major clients and financial institutions.

**Brownfields Grants/Evaluations**

- A township in Union County tried for nine months to obtain grant funds from New Jersey's Hazardous Discharge Site Remediation Fund. Three months after Mr. Elias received the assignment, the township received two grants totaling over \$.5 million. Another grant application is in the works for another site within the township.
- Mr. Elias was the primary consultant tapped by a major minority owned investment-banking firm in Manhattan to explain the potential values and pitfalls of acquiring Brownfields properties and remediating them. Discussions focused on the types of soil and ground water contamination commonly found at such sites, typical values and uses of such sites, and mechanisms for returning sites to production and profit without 100% remediation.
- Three ball bearing manufacturing plants were up for sale in New Hampshire. A client interested in purchasing these properties requested that Mr. Elias conduct an environmental review of each site. Within eight hours, all three sites were visited and evaluated, and three days later, a complete report was in the client's hands. Following the sale of the properties, it was determined that Mr. Elias' report was considered the most thorough and complete environmental evaluation produced among the six prospective purchasers.
- Property owner requested environmental review of past operational practices of tenant prior to concluding ECRA. Detailed investigations and evaluations conducted by Mr. Elias disclosed several areas of contamination not previously disclosed by tenant's consultants. These efforts resulted in additional cleanup costs paid by the tenant exceeding \$1.2 million, and ensured the owner a clean property for future applications of his choosing.

**Code**

**EXPERIENCE (Continued):**

**Environmental Forensic Investigations**

- A leaking underground storage tank on an adjacent property resulted in fines and remediation demands of the client from the State of New Jersey. Investigations resulted in a report, prepared by Mr. Elias, to the state delineating the cause and responsibility for discharges. Following review of the report, all charged, fines, and demands from the client were dropped by State of New Jersey.
- Property under agreement of sale contract remained unsold for more than 18 months. Prospective purchaser sued for refund of payment and damages based on unnecessary delay of performance. Upon review of the files, Mr. Elias determined that seller was responsible for withholding information throughout the transaction of the ECRA process, needlessly delaying the conclusion of remedial activities. The court awarded for the prospective buyer.
- Municipal client purchased two mechanical strainers worth over \$0.5 million, installed. After five years, these strainers did not perform on any reliable basis. During a lawsuit, the court requested a third party independent evaluation of the areas of responsibility for non-performance. A report was prepared by Mr. Elias identifying the areas of responsibility for non-performance and a second report was commissioned by the municipality detailing the nature, duration, extent, and causes of the failures of this equipment.

**Underground Storage Tanks**

- Preparation of detailed designs and specifications for competitive bid for the fabrication and installation of state-of-the-art bulk underground storage tanks storing No. 6 heating oil.
- Preparation of detailed designs and specifications for competitive bids for the installation of state-of-the-art underground storage tanks storing a variety of motor fuels. Designs included tanks, dispensers, canopy, and computerized fuel management systems for multi-party allocation of fuel resources.
- Preparation of numerous detailed designs and specifications on behalf of public and private clients for competitive bids for the installation of state-of-the-art underground storage tanks storing No. 2 heating oil.
- Supervision of the removal operations for eight chemical underground storage tanks, carefully controlling operating costs for industrial client. Obtained State authorization to treat contaminated soils on site prior to disposal.

**Hazardous Waste**

- Preparation of complete RCRA Part B application package for grass roots TSD facility operations.
- Instructor of courses nationwide on Hazardous Waste Management and Emergency Spill Response.

**Code**



**EXPERIENCE (Continued):**

**Wastewater Treatment & Design**

- Designed, installed, started-up plantwide wastewater collection and treatment system for major appliance manufacturer on metal finishing wastes.
- Designed zero discharge wastewater treatment system and ancillary services for new single-baseline propellant manufacture.
- Designed modifications to wastewater collection system and plantwide pH control for major commercial laundry to comply with local sewer discharge requirements. Design modifications resulted in reduced suspended solids levels, increased performance reliability, and full compliance with pH limits.
- Designed and installed major modifications to biological treatment process at fine chemicals toll manufacturer for compliance with discharge requirements. Modifications resulted in major improvements in contaminant reductions and performance reliability.
- Designed major modifications to chemical manufacturer's wastewater collection and drainage system to isolate ground water contaminants from infiltrating into plant wastewater system, resulting in discharge violations for manufacturer. Modifications succeeded in total isolation and renewed effluent discharge compliance.
- Prepared and assembled an Operators' Manual for the theory and operations of industrial activated sludge treatment systems for worldwide distribution by a major petroleum/petrochemical manufacturer/ distributor.

**Environmental Management**

- Directed negotiations with state and federal regulatory personnel on matters dealing with non-compliance issues as well as new permits.
- Visiting lecturer in the Master's Degree program in Environmental Engineering for the Civil Engineering Department at Polytechnic University, Brooklyn, New York.

**SEMINARS & LECTURES:**

- Instructor of courses nationwide on Hazardous Waste Management and Emergency Spill Response.
- Delivered lectures on underground storage tank design and management for a variety of organizations, including:  
Rutgers University, Office of Continuing Education  
Society of American Military Engineers  
Public Service Electric and Gas (14 seminars)  
Newark Board of Education  
Metro Newark Chamber of Commerce  
Petroleum Equipment Contractors Association

**Code**

**REGISTRATIONS & CERTIFICATIONS:**

Registered Professional Engineer in the state of New Jersey (No. 24869)  
Registered Professional Engineer in the state of Pennsylvania (No. 025685)  
Certified Hazardous Materials Manager (CHMM) (No. 3218)  
NJDEP Certified UST Install – Entire (No. 0000077)  
NJDEP Certified UST Closure (No. 0000077)  
NJDEP Certified UST Sub-Surface Evaluator (No. 0000077)

**PROFESSIONAL MEMBERSHIPS:**

National Society of Professional Engineers  
American Institute of Chemical Engineers  
American Chemical Society  
Water Pollution Control Federation  
Institute of Hazardous Materials Management

**SPECIAL TRAINING:**

40-Hour OSHA Health & Safety Training Course for Hazardous Waste Site Activities with Annual Updates

**Code**

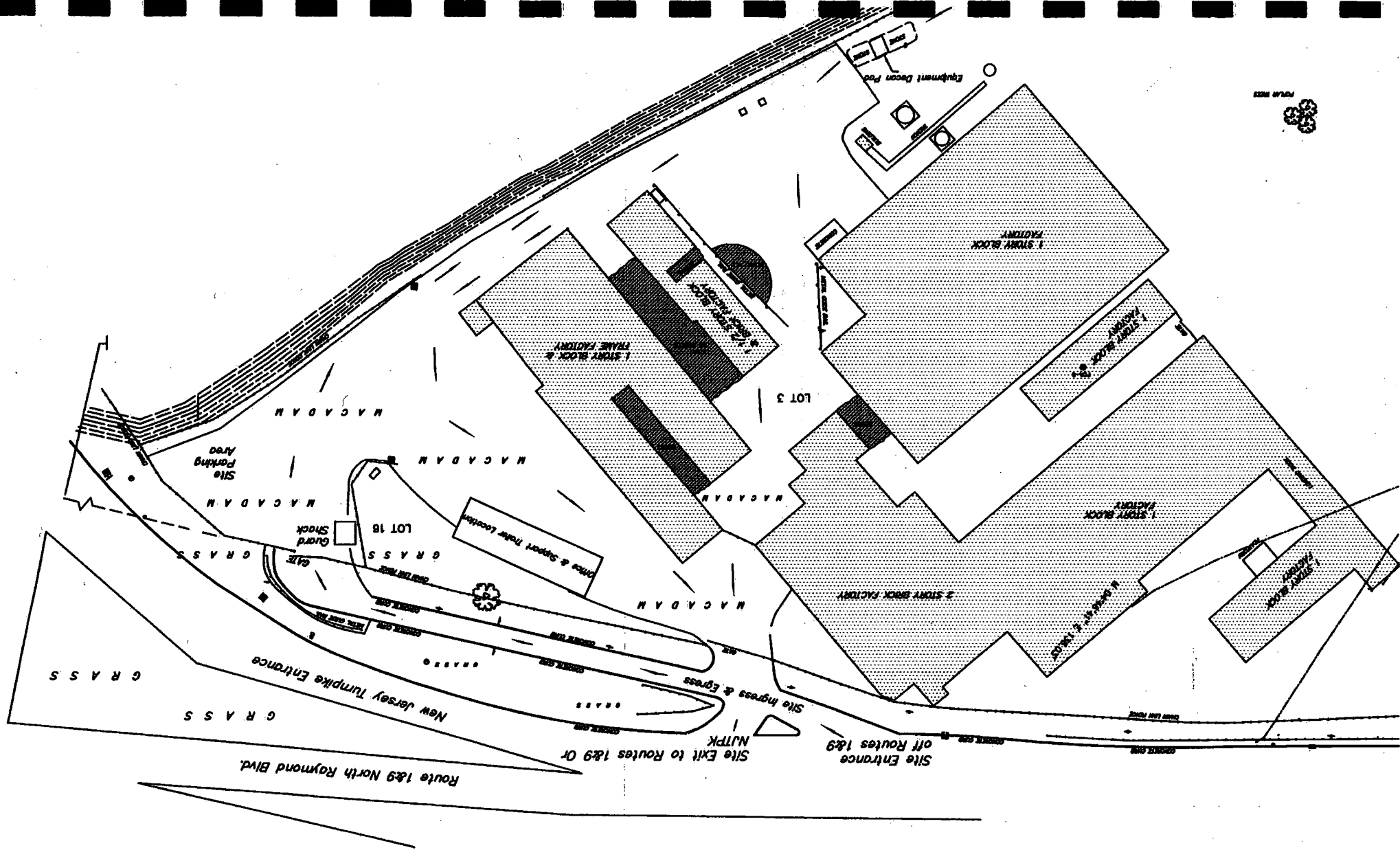
## **APPENDIX 2**

### **Site Layout Plan**

#### **Code**

**CONSTRUCTION OPERATIONS PLAN**  
**Bayonne Barrel & Drum Site, Decommissioning & Demolition**

**APPENDICES**  
**Bayonne COP Rev2.doc\rev.1\01-14-04**



## **APPENDIX 3**

### **Subcontractor's ACM Removal Plan**

#### **Code**

CONSTRUCTION OPERATIONS PLAN  
Bayonne Barrel & Drum Site, Decommissioning & Demolition

APPENDICES  
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## **Asbestos Abatement Plan:**

Bayonne Barrel – Building #1

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility, it will be used as a remote for Building #1 – Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

#### **2. Preparation: Performed prior to gross removal**

All roofing and roof flashing removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers). Any roof flashing material located on the unsafe, unstable metal decking of Building #1 will be placed on 6 mil poly and subsequently loaded into lined trailers by Metals Management for disposal by The MACK Group, LLC.

#### **3. Asbestos abatement: from safe and stable loading dock deck only**

- A. Cut & Remove all ACM roofing and roof flashing material
- B. Place onto 6 mil poly sheeting placed on the ground around the perimeter of the building
- C. Cover ACM material with 6 mil poly, when required.
- D. Remove all waste from work area and place directly into 6 mil poly lined dumpsters/ trailers with the proper OSHA labeling and generator labels.

4. Clean-up:

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and /or remove from work area

5. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

6. Disposal of Non-Friable Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

7. Return area to Code Environmental for subsequent demolition

B. Access control and security measures

- 1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
- 2. No unauthorized persons will be permitted entry.
- 3. At the end of each work day all entrances utilized by the contractor will be secured and locked by Code Environmental.

C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.

#### D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition, a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

Fire extinguishers will be deployed within the work site for added safety.

Should a fire occur - Decontamination of all workers will be by-passed until after the fire has been extinguished, then all workers will utilize the existing decon unit and decontaminate properly. All workers are to get-out the quickest possible way.

Should an injury occur - the injured worker, depending on the severity of the injuries will be either decontaminated by utilizing the decontamination facility or will be removed from the site by medical personnel without decontamination. Should the latter occur, all work will cease, all ACM will be thoroughly wet, emergency personnel will be provided suits & respirators, with instructions from our personnel on site, in utilization of same.

#### F. Equipment to be utilized is as follows:

The types of equipment which will be utilized include, but are not limited to, those which are used throughout the asbestos / demolition industry: HEPA Vacs, ladders, Lifts, airless sprayers, respirators, air monitoring equipment, cutting tools, Bobcats, Loaders, PPE, and an assortment of hand & power tools.





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## **Asbestos Abatement Plan:**

**Bayonne Barrel – Building #2**

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility, it will be used as a remote for Building #2 – Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

#### **2. Abatement:**

All roofing removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers). All of the roofing material is located on unsafe & unstable metal decking. The roofing material and metal deck will be placed on poly sheeting and subsequently loaded directly into poly lined dumpsters/ trailers (with the proper OSHA labeling and generator labels) by Metals Management for disposal by The MACK Group, LLC.

#### **3. Clean-up:**

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and /or remove from work area

#### 4. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

#### 5. Disposal of Non-Friable Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

#### 6. Return area to Code Environmental for subsequent demolition

#### B. Access control and security measures

1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
2. No unauthorized persons will be permitted entry.
3. At the end of each work day all entrances utilized by the contractor will be secured and locked by Code Environmental.

#### C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.

#### D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

Fire extinguishers will be deployed within the work site for added safety.

Should a fire occur - Decontamination of all workers will be by-passed until after the fire has been extinguished, then all workers will utilize the existing and decontaminate properly. All workers are to get-out the quickest possible way.

Should an injury occur - the injured worker, depending on the severity of the injuries will be either decontaminated by utilizing the decontamination facility or will be removed from the site by medical personnel without decontamination. Should the latter occur, all work will cease, all ACM will be thoroughly wet, emergency personnel will be provided suits & respirators, with instructions from our personnel on site, in utilization of same.

E. Equipment to be utilized is as follows:

The types of equipment which will be utilized include, but are not limited to, those which are used throughout the asbestos / demolition industry: HEPA Vacs, ladders, Lifts, airless sprayers, respirators, air monitoring equipment, cutting tools, Bobcats, Loaders, PPE, and an assortment of hand & power tools



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## **Asbestos Abatement Plan:**

Bayonne Barrel – Building #4

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility, it will be used as a remote for Building #4 – Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

#### **2. Abatement:**

All transite panel removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers). 6' fall protection will be enforced.

- A. Following the removal of the fasteners which hold the transite panels in place, the panels will be lowered, intact, to the ground either by cable or by utilizing a Lull.
- B. The transite panels will be placed on the ground within the confines and / or perimeter of the building
- C. These transite panels will then be stacked and wrapped in 6 mil poly with the proper OSHA labeling and generator labels.
- D. Remove all wrapped stacked material utilizing fork lift type equipment (Lull) and placed directly into 6 mil poly lined dumpsters/ trailers.

3. Clean-up:

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and /or remove from work area

4. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

5. Disposal of Non-Friable Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

6. Return area to Code Environmental for subsequent demolition

B. Access control and security measures

- 1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
- 2. No unauthorized persons will be permitted entry.
- 3. At the end of each work day all entrances utilized by the contractor will be secured and locked by Code Environmental.

C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.

#### D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

Fire extinguishers will be deployed within the work site for added safety.

Should a fire occur - Decontamination of all workers will be by-passed until after the fire has been extinguished, then all workers will utilizing the existing and decontaminate properly. All workers are to get-out the quickest possible way.

Should an injury occur - the injured worker, depending on the severity of the injuries will be either decontaminated by utilizing the decontamination facility or will be removed from the site by medical personnel without decontamination. Should the latter occur, all work will cease, all ACM will be thoroughly wet, emergency personnel will be provided suits & respirators, with instructions from our personnel on site, in utilization of same.

#### E. Equipment to be utilized is as follows:

The types of equipment which will be utilized include, but are not limited to, those which are used throughout the asbestos / demolition industry: HEPA Vacs, ladders, Lifts, airless sprayers, respirators, air monitoring equipment, cutting tools, Lull, Loaders, PPE, and an assortment of hand & power tools.



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## **Asbestos Abatement Plan:**

Bayonne Barrel – Building #5

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility, it will be used as a remote for Building #5 – Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

#### **2. Abatement: Roofing**

All roofing removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers). All of the roofing material is located on unsafe & unstable metal decking. The roofing material and metal deck will be placed on poly sheeting and subsequently loaded directly into poly lined dumpsters/ trailers (with the proper OSHA labeling and generator labels) by Metals Management for disposal by The MACK Group, LLC.

#### **3. Abatement: Pipe Insulation**

- A. All pipe insulation will be removed utilizing negative-air glove-bag techniques
- B. Remove all spent glovebags from work area, double bag with the proper OSHA labeling and generator labels and place directly into 6 mil poly lined dumpsters/ trailers.

#### **4. Clean-up:**

- A. Inspect the work area to insure all material has been removed.

- B. Wet wipe & Hepa Vac all equipment and /or remove from work area

5. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

5a. Air Monitoring – Third Party (Glovebag Work Area only)

- A. All TEM or PCM Final sampling, as required, and the recalculation of air pumps, etc. will be performed by an independent third party as per required regulations.

6. Disposal of Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

7. Return area to Code Environmental for subsequent demolition

B. Access control and security measures

1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
2. No unauthorized persons will be permitted entry.
3. At the end of each work day all entrances utilized by the contractor will be secured and locked by Code Environmental.

C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.



#### D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

Fire extinguishers will be deployed within the work site for added safety.

Should a fire occur - Decontamination of all workers will be by-passed until after the fire has been extinguished, then all workers will utilizing the existing and decontaminate properly. All workers are to get-out the quickest possible way.

Should an injury occur - the injured worker, depending on the severity of the injuries will be either decontaminated by utilizing the decontamination facility or will be removed from the site by medical personnel without decontamination. Should the latter occur, all work will cease, all ACM will be thoroughly wet, emergency personnel will be provided suits & respirators, with instructions from our personnel on site, in utilization of same.

#### E. Equipment to be utilized is as follows:

The types of equipment which will be utilized include, but are not limited to, those which are used throughout the asbestos / demolition industry: Micro Traps (air filtration units), HEPA Vacs, ladders, Lifts, airless sprayers, respirators, air monitoring equipment, cutting tools, Bobcats, Loaders, PPE, and an assortment of hand & power tools



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## **Asbestos Abatement Plan:**

Bayonne Barrel – Building #8

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility as a lockable decon unit attached to the work area for the boiler wrap removals. This same decon will be utilized as a remote decon for the roofing and glovebag work only following completion of the boiler work - Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

#### **2. Preparation: Boiler Work**

- A. Install all temporary electric w/ ground fault interrupter circuitry (GFI)
- B. 2 layers of fire rated 6-mil poly on all critical barriers
- C. Install Negative air units enough to create 4 changes per hour.

#### **3. Asbestos abatement: Boiler Work**

- A. Wet & Remove all ACM Boiler insulation
- B. Wet & remove all fittings/pipe insulation from within the work area.
- C. Double 6 mil bag all waste with the proper OSHA labeling and generator labels.

- D. Remove all waste from work area directly into 6 mil poly lined dumpsters/ trailers.

3a. Abatement: Roofing

All roofing removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers).

The roofing material will be placed on poly sheeting and subsequently loaded directly into poly lined dumpsters/ trailers (with the proper OSHA labeling and generator labels) for disposal by The MACK Group, LLC.

3b. Abatement: Pipe Insulation

- A. All remaining pipe insulation will be removed utilizing negative-air glove-bag techniques
- B. Remove all spent glovebags from work area, double bag with the proper OSHA labeling and generator labels and place directly into 6 mil poly lined dumpsters/ trailers.

4. Clean-up: Boiler work only

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and cover, or remove from work area
- C. Final clean the entire work area.
- D. Encapsulate with a lockdown encapsulant - everything in the work area, utilizing an airless sprayer, - including all walls, ceilings, floors, and critical barriers.
- E. If no visible dust is found final TEM air tests will be taken
- F. After passing final tests - wet and remove any critical barriers as ACM

4a & 4b Clean-up: Roof and Glovebag work only

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and cover, or remove from work area

## 5. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

### 5a. Air Monitoring – Third Party

- A. All TEM Final sampling, recalculation of air pumps, etc. will be performed by an independent third party as per required regulations. (Boiler & Glovebag areas only)

## 6. Disposal of Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

## 7. Return area to Code Environmental for subsequent demolition

### B. Access control and security measures

1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
2. No unauthorized persons will be permitted entry.
3. At the end of each work day all entrances utilized by the contractor will be secured and locked by The MACK Group, LLC.

### C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.

#### D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

Fire extinguishers will be deployed within the work site for added safety.

Should a fire occur - Decontamination of all workers will be by-passed until after the fire has been extinguished, then all workers will utilizing the existing and decontaminate properly. All workers are to get-out the quickest possible way.

Should an injury occur - the injured worker, depending on the severity of the injuries will be either decontaminated by utilizing the decontamination facility or will be removed from the site by medical personnel without decontamination. Should the latter occur, all work will cease, all ACM will be thoroughly wet, emergency personnel will be provided suits & respirators, with instructions from our personnel on site, in utilization of same.

#### E. Failure of containment barriers, electrical failures and other unforeseen situations (Contingency Plan):

Prior to and at the completion of each shift all barriers will be checked as per regulations. If during the abatement any containment barrier fails, electrical outage occurs, or any other situation which may compromise the containment shall fail - all work will cease, all ACM will be thoroughly wet, and work will not commence until the integrity of the containment system is reestablished.

#### F. Equipment to be utilized is as follows:

The types of equipment which will be utilized include, but are not limited to, those which are used throughout the asbestos / demolition industry: Micro Traps (air filtration units), HEPA Vacs, ladders, Lifts, airless sprayers, respirators, air monitoring equipment, cutting tools, Bobcats, Loaders, PPE, and an assortment of hand & power tools.



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## **Asbestos Abatement Plan:**

Bayonne Barrel – Building #9

All work will be performed following all OSHA & EPA regulations as they pertain to asbestos abatement.

### **A. Work Plan**

#### **1. Mobilization:**

- A. Place all required signage on an entrance to the building and work area
- B. Build decon facility, it will be used as a remote for Building #9 – Quality Assurance inspection will be performed by The MACK Groups' competent person and/or site supervisor. Documentation will be made in the project log.

B1. Air lock for VAT work area will be utilized

#### **2. Preparation: VAT**

The VAT (all VAT is presently loose and broken) / Mastic removal: utilizing critical barriers only and the establishment of a negative air environment:

- A. Install all temporary electric w/ ground fault interrupter circuitry (GFI)
- B. 2 layers of fire rated 6-mil poly on all critical barriers
- C. Install Negative air units enough to create 4 changes per hour.

#### **3. Asbestos abatement: VAT / Mastic**

- A. Wet & Remove all VAT
- B. Chemically remove all Mastic

- C. Remove all VAT / Mastic waste from work area through the air lock / waste chamber then into covered carts – directly into 6 mil poly lined dumpsters/ trailers with the proper OSHA labeling and generator labels

3a. Asbestos abatement: Roofing

All roofing removal will be performed as non-friable abatement work utilizing dust control methods (misting with hand pump sprayers).

The roofing material will be placed on poly sheeting and subsequently loaded directly into poly lined dumpsters/ trailers (with the proper OSHA labeling and generator labels) for disposal by The MACK Group, LLC.

4. Clean-up: VAT only

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and cover, or remove from work area
- C. Final clean the entire work area.
- D. Encapsulate with a lockdown encapsulant - everything in the work area, utilizing an airless sprayer, - including all critical barriers.
- E. If no visible dust is found final TEM air tests will be taken
- F. After passing final tests - Wet and remove any critical barriers as ACM

4a. Clean-up: Roof only

- A. Inspect the work area to insure all material has been removed.
- B. Wet wipe & Hepa Vac all equipment and cover, or remove from work area

5. Air Monitoring - OSHA

- A. All OSHA sampling, recalculation of air pumps, etc. will be performed by The MACK Group, LLC. s' competent person and/or site supervisor as required per OSHA regulations utilizing personal air pumps on a worker and analysis by an independent

third party laboratory - results will be posted and a copy will be supplied to the Groups' on site representative.

5a. Air Monitoring – Third Party

- A. All TEM Final sampling, recalculation of air pumps, etc. will be performed by an independent third party as per required regulations. (VAT only)

6. Disposal of Asbestos Waste

- A. Dispose of all waste in an approved EPA landfill as per regulations, complete with all required documentation & manifests.

7. Return area to Code Environmental for subsequent demolition

B. Access control and security measures

1. All persons entering work site will be identified, signed in, and the listing of times of entry and departure will be documented.
2. No unauthorized persons will be permitted entry.
3. At the end of each work day all entrances utilized by the contractor will be secured and locked by The MACK Group, LLC.

C. Manpower requirements:

The MACK Group, LLC. understands that time is of the essence. The average size of our crew will be 5-7 men with a fluctuation of an additional 5 men depending on the work involved, time remaining, etc.

D. Emergency & Fire Evacuation Plan

Utilizing all the accesses into the work area, as egresses, we will post within the work area signs and direction arrows indicating the escape route to be utilized. In addition a safety meeting prior to the commencement of the work will be performed expressly to make everyone aware of the evacuation routes and location of all fire extinguishers.

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